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ABSTRACT

Three problems in the field of library science concerning the education of reference librarians which this project attempted to solve were: (1) unsatisfactory teaching methods, (2) variation of education and skill among students and (3) lack of self-instructional materials. The development and testing of computer-assisted instructional materials has contributed to the solution of these problems by making available: (1) a type of education in which reference situations are simulated, (2) an instructional period to evaluate discrimination and performance and (3) easily revised self-instructional materials. The purpose of these materials is to help the library science students at the master's level become acquainted with a wide spectrum of representative reference materials and to learn to use these in meeting the informational needs of the library patrons. To accomplish these objectives, 167 reference work annotations and 850 questions dealing with these tools were compiled and organized into a linear program. Reference interviews in libraries were monitored and recorded for use as simulated case studies. In these situations, the computer acts as the patron and the student as the librarian. The group using the computer scored significantly higher on examinations than did another control group which did not use the computer. (MF)

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Project Report

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THE DEVELOPMENT AND TESTING OF MATERIALS FOR COMPUTER-ASSISTED INSTRUCTION IN THE EDUCATION OF REFERENCE LIBRARIANS

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CHAPTER I

SUMMARY

There were three problems in the field of library science concerning the education of reference librarians which this project has attempted to make a start towards remedying: (1) unsatisfactory teaching methods, (2) variation of education and skill among students, and (3) lack of self-instructional materials.

The development and testing of computer-assisted instructional materials has made a small contribution to the solution of these problems by (1) making available a type of education in which reference situations are simulated, (2) making it possible to evaluate discrimination and performance throughout the instructional period, and (3) making available easily revised self-instructional materials.

The purpose of these materials has been to help library science students at the master's level to become acquainted with a wide spectrum of representative reference materials and to learn to use these in meeting the informational needs of library patrons.

To accomplish these objectives, annotations were written for 167 reference works and 850 questions having to do with these tools were compiled. These annotations and questions were organized into a linear program. The great advantage of employing the computer during this development was that of collecting and summarizing the student response data to be used as the basis for revision. The programmed exercises were coded into File Oriented Interpretive Language, entered into the computer, and tried out with fifty-eight people. At the same time, reference interviews in libraries were monitored and recorded for use as simulated case studies. In these situations the computer acts as the patron and the student as the librarian. A scheme has been devised for programming these interactive simulated exercises, which have been coded into FORTRAN and entered into the computer. A lengthy scheme for the revision of both types of exercises was developed and accomplished to provide for more flexible responses.

The group using the computer scored significantly higher on examintions than did another control group which did not use the computer. In the use of the linear, tutorial exercises, no significant differences were found among the groups which used these in a programmed learning book and those which used the computer. Based on this data, it seems that although the computer was useful in developing the exercises, it may be advisable to use them in booklet form. In the case of the simulated exercises, however, the complexity of both the materials and the student responses argue for computer-based development and administration.

The students saw the experience with computer-assisted instruction in general as a positive one. Although they ranked the materials low in providing for creativity, the materials were positively evaluated for being

challenging, unrepetitive, clear, a good test of the students' mastery of the material, having reasonable standards for performance, and useful in accomplishing the objectives of the course. The students were unanimous in concluding that the material was not to difficult to be covered by computer-assisted instruction and yet that the material presented in this way was not trivial.

These materials will continue to be used on a regular basis at The University of Michigan. They can also be utilized by other institutions for education in graduate programs of library science.

Two doctoral dissertations are in the process of being developed in connection with this project. The first will test the hypothesis that on items written to test knowledge recall, library school students enrolled in a basic reference course will learn as much from a computer-assisted instruction program based on inquiry logic as they will from computer-assisted instruction based on a tutorial logic and that on items written to test more complex instructional objectives, library school students enrolled in a basic reference course will learn as much from a computer-assisted instruction program based on a tutorial logic as from a computer-assisted instruction program based on inquiry logic. The second dissertation will be based on experiment which will test the hypothesis that the reference course can be taught as effectively by independent study, utilizing computer-assisted instruction and individualized work in the library, as it can be by mass educational techniques.

It is also recommended that this technique be used to develop and test materials for other courses in library science, such as those in the bibliography of the humanities, the social sciences, and the sciences.

CHAPTER II

INTRODUCTION

Problems under Consideration

There are three problems in the field of library science concerning the education of reference librarians which this project has attempted to make a start towards remedying.

(1) Unsatisfactory teaching methods. One of the problems is associated with inadequate teaching methods. Many classes in the use of reference materials, for example, lack individual instruction in the principles of bibliographical organization and control. Students often, therefore, waste time through studying in a haphazard fashion and are sometimes unaware that they are not using their time expeditiously.

(2) Variation of education and skill among students. A second problem is created by the fact that students enter the graduate programs at many levels of sophistication. Some are recent graduates of poor undergraduate schools in which little use of reference or bibliographical materials has been made. Others have worked in reference departments. Still others have advanced degrees in such diverse fields as law, theology, history, or education. The better educated become bored with explanations of simple reference tools, while the less skilled become frustrated when they are expected to have acquaintance with materials to which they have had no exposure. Much of the instruction in the use of these tools is done on the assumption that all students need the same education and disregards the fact that individuals in the classes enter with varied backgrounds and abilities.

Lacking instruments to measure these students' skills and abilities, some instructors treat all students alike, because teachers are often unaware of individuals' discriminatory or performing abilities. By examination periods it is often too late to help the students develop better patterns of discrimination and performance. Such teachers often proceed with the assumption that all students need the same instruction, and this kind of teaching often results in inefficiency and boredom.

(3) Lack of self-instructional materials. Printed programmed learning materials for teaching reference at the graduate level were not available at the beginning of the project.

The development and testing of computer-assisted instructional materials has made a contribution to the solution of these problems.

(1) Computer-assisted instruction has helped, for example, to correct dissatisfaction in library education by making available a type of education in which reference situations could be simulated. These kinds of problems with opportunities for individual responses allow, for instance, more interaction between auto-teachers and students. Situations have been set up, for example, in which the computer acts as the patron of the library and the student as the librarian. The computer poses questions, and the student responds. Because of the difficulties students have in getting professional experience in libraries before graduation from library school,

this is a good reason to have simulated interaction in the form of laboratory experience.

(2) Individual performance has been evaluated throughout the instruction period. Proficiency examinations have, for example, been developed for pre-testing. These have been devised to diagnose the needs of students. The basic program has been written in modules which are independent. By the kind of evaluation which can be done in computer-assisted instruction, students' abilities and performances have been judged at various points in the course, rather than waiting until examination periods. Thus, the instructor has been able to revise the objectives, methodology, and content of his courses to meet the needs of individuals.

(3) This form of instruction has advantages over printed programs in that the materials are subject to easier revisions. Instruction in the use of new reference materials which appear daily can be done, for example, more flexibly than through printed materials, as this data can be more easily stored and revised through the use of the computer. A use of the computer in this program development has also been to secure many responses from students, and this kind of data has been used to revise the program.

One such system has been developed in connection with Programmed Logic for Automatic Teaching Operations at the Coordinated Science Laboratory of the University of Illinois. Marina E. Axeen, a former doctoral student in library science there, has written a fourteen unit program which covers the course content of a class on "Introduction to the Use of the Library." This is an elective course offered to undergraduates by the University of Illinois Graduate School of Library Science. Each unit contains a maximum of two hours of instruction. The units include: development of books and printing; making of the book; history and development of libraries; classification; the card catalog; shelflist, serial record and periodical rotary file; introduction to reference books, dictionaries, encyclopedias, biographical dictionaries, yearbooks, atlases and gazetteers, indexes, bibliography and footnote forms.

This project was not designed for potential reference librarians but for patrons. Nor does it realize the potentialities of the computer for instruction because it is a linear program. It has been possible, however, to profit from the experience of the Illinois program in the development and testing of these materials for the education of reference librarians.

A few programs for library orientation, such as those using audio-plus pictures. are described in A Study to Determine the Extent to Which Instruction of University Freshmen in the Use of the University Library Can Be Turned Over to Teaching Machines, a report by the Southern Illinois Educational Media Research Center dated July 1, 1963. The project was made possible by U.S.O.E. Grant No. 7-11-076.00 made under provision of Title VII of P.L. 85-864. Little attention was given in these programs to reference, and the computer was not utilized in any way. Other pro-

grammed instructional units, such as the one for ERIC indexers developed at the University of Maryland, do not have the same objectives as this project.

Methods

Development Steps

The materials developed for this project are of two types. The first, linear programs, are exhibited in Appendix A. The second type, simulated reference interviews, are displayed in Appendix B.

The programmed materials referred to in Appendix A can be used by students in booklet form apart from the computer; although throughout the development of these materials, they were administered by the computer. The advantage of employing the computer during the development stage is that of collecting and summarizing the student response data to be used as the basis for revision.

The simulated case studies illustrated in Appendix B were developed on and administered by the computer. The complexity of both the materials and student responses argue for computer-based development and administration. A computer version in schematic form has been drafted and entered into The University of Michigan system for testing. As one example of this learning strategy, the documentation demonstrates not only the strategy but a procedure for representing the materials and logic in a form readily interpreted by professors not familiar with computers. This facilitates effective revision by the author of the exercises, communication of the ideas to educators at other library schools, and adaptation of the procedure on other computer-based systems.

Thus, the computer is not needed in the development but may be useful in the administration of diagnostic tests. The computer was used also to develop the programmed learning exercises; and the simulated library situation used the computer both in the development and administration stages. The development procedure was similar to that for the first type of material but convenience in notation and revision of the computer-based materials and strategy was even more important. The project has benefited from efforts of the staff of the Center for Research on Learning and Teaching of The University of Michigan to develop a user-oriented system for development, testing, and use of instructional materials on computer-based systems.

The steps in the development of these materials have been:

(1) Defining objectives

The purposes of these materials are to help library science students at the master's level to become acquainted with a wide spectrum of representative reference materials and to learn to use these in meeting the informational needs of library patrons.

In determining the means to accomplish these purposes, pre-tests for determining propaedeutic skills and program-acquired skills were devised. During the fall semester a pre-test was administered to one reference class which was using computer-assisted instruction as well as to one which was not. In the winter term pre-tests were given to a class using the computer-assisted instructional materials. Pre-tests were also administered to random students in both the fall and the winter on each of the exercises and comparisons have been made between the pre and post-test results. Terminal materials for defining the behaviors which the program is designed to produce have also been prepared and administered.

(2) Teaching Materials

Materials were then developed to accomplish the objectives of the program. Annotations were, for example, written for 167 reference works and 850 questions having to do with these tools were compiled. These annotations and questions were organized into a linear program. The questions are placed at different locations in the program in order to help the students learn the nature of the sources and to differentiate among them for the selection of tools to aid in meeting the informational needs of patrons. These programs were written in modules which are independent.

The programmed exercises were coded into File Oriented Interpretative Language (FOIL), entered into the computer and tried out with fifty-eight people. The computer programmer has also rewritten FOIL so that it is more flexible, efficient, and inexpensive. This language has been documented with a manual for authors and programmers.

At the same time, reference interviews in Grand Rapids, Ann Arbor, and Detroit, Michigan libraries were monitored and recorded for use as simulated case studies. These exercises, providing opportunities for interaction between auto-teachers and students, were then developed. In these situations the computer acts as the patron and the student as the librarian. The computer poses problems and the student responds. A scheme has been devised for programming these interactive simulated exercises, which have been coded into FORTRAN and entered into the computer.

(3) Testing

Diagnostic examinations for defining the behavior which the program was designed to produce were prepared and administered. The materials described above were then tested by fifty-eight students on the Ann Arbor campus. An instruction sheet on how to use the terminal was prepared, and each student received instruction on how to use the terminal. An evaluation form was also prepared, and each student completed it after working at the terminal. A summary for each exercise was prepared from these sheets.

This student testing was done to discover if these programs could readily be understood, discriminated among, and responded to. The computer was programmed to summarize errors and response times as well as

to list all responses in categories of "right," "wrong," and "unanticipated."

A Semantic Differential Scale consisting of sixteen concepts and paired adjectives was also prepared and administered to three sections of a reference course, two of which used the terminal and one of which did not. A test was given at the end of the semister to determine if any changes in attitudes had taken place.

A great deal of student reaction, attitude, and achievement data has been collected and analyzed. Comparisons have been made, for example, between pre and post-test results.

The materials were also field tested at Wayne State University, Eastern Michigan University, and Western Michigan University. A national seminar on computer-assisted instruction in the education of reference librarians was also held for library science faculty, and demonstrations and testing of the use of the program were made at this time.

(4) Revision

At the beginning of the testing period, one or two students were asked to go through the program; it was then revised before being tested with more students. Eventually the materials were tested by the entire class, but revision took place at each step. At each of these stages, the materials were evaluated by the information recorded by the computer and from students' comments and performances.

Thorough records were kept of these student responses, which were collected and summarized for revision purposes. The print-outs for each exercise were, for example, examined and the errors were tabulated and reviewed for needed revisions. Through this it was learned, for instance, that some of the programs needed to be revised to accommodate more flexible responses; and this was accomplished.

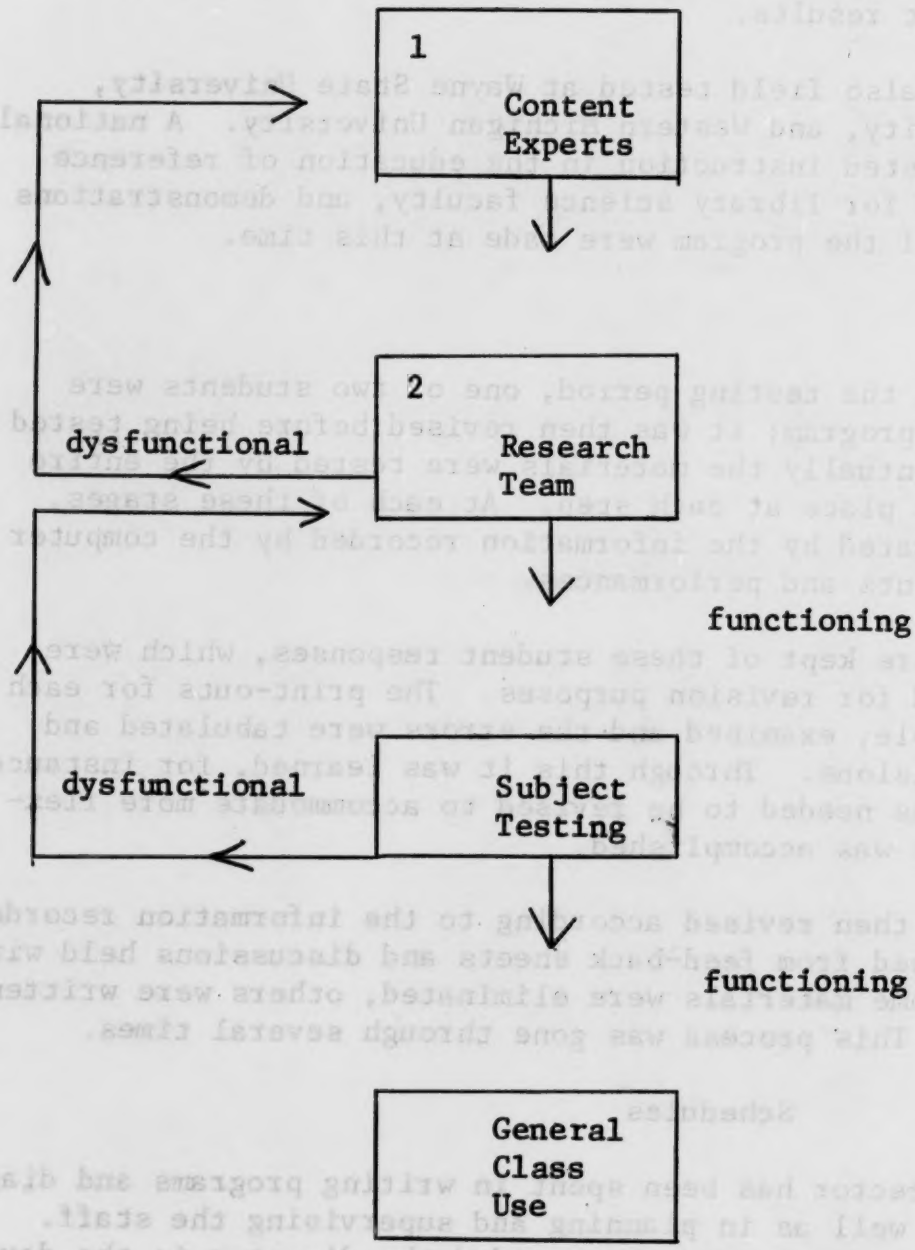
The materials were then revised according to the information recorded by the computer and gained from feed-back sheets and discussions held with individual students. Some materials were eliminated, others were written, and many were revised. This process was gone through several times.

Schedules

The time of the director has been spent in writing programs and diagnostic examinations, as well as in planning and supervising the staff. The research associate and assistants have aided the director in the development of these materials by writing, editing, and reviewing the exercises, tabulating test scores, examining print-outs for errors, tabulating errors and reviewing tabulations for needed revisions, preparing tests, and evaluation forms, analyzing data, and designing research and systems of instruction. Student assistants have also monitored and recorded reference interviews in libraries in Ann Arbor, Grand Rapids, and Detroit, Michigan. The computer programmers have been aided by a part-time clerk who does keypunching and monitors students who have come to the Center for Research on Learning and Teaching to use the terminal. This breakdown of work is illustrated in Table 1, and the time schedule is explained in Table 2.

TABLE I

WORK FLOW CHART



Components in Development Process

1. Computer program language written
2. Content rewritten into languages
3. Program debugged
4. Tested on subjects
5. Evaluated
6. Revised
7. Retested

TABLE 2

TIME SCHEDULE

	May 1, 1969	Sept. 1, 1969	Jan. 1, 1970	May 1, 1970
Instructional Materials	Pilot exercise operating on 360/67.	Draft CAI exercises testing with individual students.	Test exercises with classes.	Untilize exercises with classes.
Author Demonstrations and Aids	Seminar for Library Science faculty at the University of Michigan.			National seminar; publication of workshop materials including samples of materials prepared
Computer Language	Initial specifications for programming language and general notation system developed.	Revise language and system support for this application and content area.	Test adapted author language and notation.	Disseminate materials in general notation; advise on revising for other computers.

CHAPTER III

FINDINGS AND ANALYSIS

In this project the major evaluative emphasis was on the use of student data to revise early versions of the material so that the exercises would be more effective in enabling students to achieve the stated objectives. This formative evaluation was utilized with each of the modes of material (linear and simulation) for both Phase I and Phase II.

Phase I Formative Evaluation

When the students came to the Center for Research on Learning and Teaching to run the linear exercises, they were administered a pre-test and a post-test over the relevant content (Appendix C). In addition, copies of their terminal print-outs were collected, and each student completed an evaluation form (Appendix C). Results of the evaluation form revealed that in general the students saw the experience as a positive one, and made many constructive criticisms. The results from these forms are presented in Tables 3 and 4. Another fruitful source of evaluative data was found in the observations drawn from the comments and performances of students working at the terminal. All of the above data were used to analyze the material. Revisions were then made on the content and mode of presentation. In total, ten exercises were programmed, tested, and revised during Phase I. The data from these instruments were used to revise both the content and the technique of instruction.

Pre and post responses for each exercise were tabulated in the form shown in Table 5. Items were classified according to difficulty on both tests. The desired direction of change in student knowledge was from the difficult end to the easy end of the scale. Approximately one-third of the items were revised as a result of this analysis. Inspection of student's print-outs revealed errors primarily in the areas of ambiguous statements within the program and incomplete information in the book of annotations.

Phase I Summative Evaluation

A Semantic Differential was administered to assess attitudinal changes as a function of exposure to computer technology. An example of one of the sixteen concepts along with the twenty adjectives included in the instrument is found in Table 6. Results were analyzed for the six concepts of Computer, Automation, Technology, Teaching Machines, Programmed Instruction, and Freedom. These were thought to be those most relevant to the objectives of this project. Responses for the adjectives measuring evaluative and potency attitudes as well as for the total set of adjectives are found in Table 7 for the non-computer group and in Table 8 for the computer group.*

* Charles Osgood, The Measurement of Meaning (Urbana: University of Illinois, 1967).

TABLE 3

STUDENT EVALUATION OF LINEAR EXERCISES

1. How helpful did you find the exercise in learning the material?

A. very helpful
B. helpful
C. some help
D. no help

Encyclopedias A B C D	Yearbooks A B C D	Statistics A B C D	Biography A B C D	Bibliography A B C D
*5 2 0 1	2 3 1 0	2 2 2 0	1 3 1 0	1 2 2 0

Dictionaries A B C D	Handbooks A B C D	Serials A B C D	Directories A B C D	Government A B C D
3 5 1 0	4 6 1 0	3 2 2 0	7 3 3 0	6 1 0 0

2. How interesting did you find the material?

A. most interesting
B. moderately interesting
C. fairly interesting
D. not interesting

Encyclopedias A B C D	Yearbooks A B C D	Statistics A B C D	Biography A B C D	Bibliography A B C D
7 1 0 0	2 1 2 1	2 2 2 0	2 1 2 0	3 0 2 0

Dictionaries A B C D	Handbooks A B C D	Serials A B C D	Directories A B C D	Government A B C D
4 0 3 2	5 4 2 0	2 4 1 0	4 4 5 0	1 5 1 0

3. How much did the exercise clarify the handbook material?

A. much
B. some
C. little
D. none

Encyclopedias A B C D	Yearbooks A B C D	Statistics A B C D	Biography A B C D	Bibliography A B C D
5 2 1 0	3 3 0 0	3 2 1 0	2 3 0 0	1 4 0 0

Dictionaries A B C D	Handbooks A B C D	Serials A B C D	Directories A B C D	Government A B C D
4 5 0 0	5 6 0 0	3 3 1 0	9 2 2 0	6 1 0 0

* number of students selecting each item.

TABLE 4

SUMMARY OF COMMENTS IN RESPONSE
TO EVALUATION QUESTION #6

Encyclopedias

1. A very good adjunct to teaching, however, it should never replace personal and individual instruction.
2. Questions seemed designed to demonstrate the significance of the annotation information in selecting a source.
3. Wanted the opportunity to do more exercises.
4. Requested an opportunity to become more familiar with the sources as the annotations were not complete enough.

Yearbooks

1. A frustrating experience.
2. Information overlaps in classification of yearbooks.
3. Learned more from a wrong answer, especially in the review questions.
4. Too many chances after a wrong answer.
5. Requested more review sections and fewer questions on each source.
6. Found the simple answers "yes" and "no" useless.
7. Final quiz not always reinforcing.
8. Questions should not be repeated.

Statistics

1. Wanted a reduction in the number of chances after a wrong answer.
2. Found the computer shut-downs annoying.
3. Learned some new information about references.
4. More accurate abbreviations, e.g., UN for United Nations.

Biography

1. Need more experience with the computer.
2. Questions should be more detailed.
3. Program good; a lot of help.
4. Annotations should be more complete.
5. Exercise too long.
6. Quiz questions not detailed enough to answer questions.
7. Need key words or abbreviations for titles.

Bibliography

1. Some questions, especially bibliographical form, should have several possible answers.
2. Interesting exercise, good experience.
3. Yes/No questions not as helpful as the fill-in type.
4. Found the exercise too long.
5. Found that the manual could be more specific in some areas.
6. Difficulty with the computer system created problems in answering questions.

TABLE 4--continued

Dictionaries

1. Annotations ambiguous in some cases, should be more explicit.
2. Group work more helpful.
3. Explanations of correct or incorrect answers helpful.
4. Very useful in demonstrating differences between similar works and the value of certain tools for specific information.
5. Need consistent abbreviations or key words for titles.

Handbooks

1. Annotations should be more thorough.
2. Pleasure to run program.
3. Questions could be clearer.
4. Need key words or abbreviations for titles.
5. Students should have more opportunity to use the terminal.
6. Group work is almost valueless.
7. Program should include all handbooks and show differences between them.
8. Easy for a strong feeling of hostility to be generated toward the program.

Serials

1. Some questions ambiguous and misleading; some very helpful.
2. Found group competition difficult.
3. Need key words or abbreviations for titles.
4. Would be frustrating if working alone.
5. Brought out differences in the tools.
6. Very interesting and rewarding.

Directories

1. Better designed program; more thorough, thoughtful, and easier to follow.
2. Need key words or abbreviations for titles.
3. Enjoyed working in groups.
4. Annotations could be more complete.
5. Found it difficult to concentrate in a group.
6. Could be combined with the exercise on Handbooks.

Government Publications

1. Group experience more beneficial, less frustrating.
2. Some questions were ambiguous or tricky.
3. Annotations not complete enough.

TABLE 5

LINEAR PRE-POST TEST DIFFICULTY RESPONSE

Dictionaries

Post-Test	Easy ≥75%	Medium <75% >25%	Difficult ≤25%
Easy ≥75%	2*	5,6,7,8,9,10,11,12	1,3,4,13,15,16
Med. <75% >25%			14,17
Diff. ≤25%			

* Digits in cell represent test item number.

TABLE 6

SEMANTIC DIFFERENTIAL SCALE

The Semantic Differential Scale contains these sixteen concepts: School, Computer, Learning, Automation, Technology, Teaching Machine, Study, University of Michigan, Test, Programmed Instruction, Library, Browsing, Teaching, Books, Student, and Freedom. The list of twenty adjectives used by the students to rate their feelings about each concept remains the same for all sixteen concepts. (See sample on following page.) The first eleven adjectives are evaluative, the next four are potency, and the last five were not used.

Instructions given to the students:

On the following pages are lists of adjectives. There is a line with seven spaces between each set of adjectives. You are to put a check mark in the space that best describes your feelings in that situation.

1. Place checks in the middle of the spaces.

2. Be sure to check every item.

3. Be sure to make only one check per item.

4. Mark each item quickly, your first impression is best.

5. Sometimes the set of adjectives may not make sense. Even so, give your best answer.

School

Good							Bad
Worthless							Valuable
Pleasant							Unpleasant
Clear							Hazy
Untimely							Timely
Pleasurable							Painful
Meaningless							Meaningful
Important							Unimportant
Progressive							Regressive
Negative							Positive
Foolish							Wise
Hard							Soft
Strong							Weak
Free							Constrained
Constricted							Spacious
Active							Passive
Simple							Complex
Interesting							Boring
Unusual							Usual
Sensitive							Insensitive

TABLE 7

SEMANTIC DIFFERENTIAL SCALE RESPONSE

Phase I Non-Computer Group

	Total Semantic Scale			Evaluative Scale			Potency Scale		
	Pre	Post	Sig	Pre	Post	Sig	Pre	Post	Sig
Computer	4.86	4.85	NS	5.22	5.16	NS	4.06	4.18	NS
Automation	4.51	4.80	NS	5.10	5.33	NS	3.99	4.17	NS
Technology	5.17	3.31	NS	5.62	5.80	NS	4.53	4.54	NS
Teaching Machine	4.45	5.03	NS	5.18	5.62	P<.05	3.96	4.24	NS
Programmed Instruction	4.35	4.97	P<.05	5.08	5.43	P<.05	3.83	4.25	NS
Freedom	5.69	5.99	NS	6.21	6.27	NS	5.55	5.60	NS
	df = 40			df = 20			df = 6		

TABLE 8

SEMANTIC DIFFERENTIAL SCALE RESPONSE

Phase I Computer Group

	Total Semantic Scale			Evaluative Scale			Potency Scale		
	Pre	Post	Sig	Pre	Post	Sig	Pre	Post	NS
Computer	4.92	5.12	NS	5.23	5.73	NS	4.14	4.05	NS
Automation	4.66	4.75	NS	5.14	5.26	NS	4.06	4.16	NS
Technology	5.04	4.81	NS	5.38	5.29	NS	4.60	4.02	NS
Teaching Machine	4.82	4.78	NS	5.02	5.39	NS	3.98	3.78	NS
Programmed Instruction	4.78	4.91	NS	5.19	5.51	NS	3.95	3.83	NS
Freedom	5.87	6.07	NS	5.19	6.24	NS	5.67	6.01	NS
	df = 40			df = 20			df = 6		

The non-computer group attitudes toward concepts on the Semantic Differential changed significantly in a more positive direction for program instruction. When broken down into evaluative and potency scales, significance is found on the evaluative scale with positive change occurring on the concepts of Teaching Machines and Programmed Instruction. The computer group demonstrated no significant changes in attitudes.

These results indicate that the Semantic Differential instrument was not sensitive to attitudinal changes on the part of the computer group as a result of their interactions with the computer. It should be noted that students in this group would not be expected to demonstrate dramatic attitudinal changes in that they were given access to the computer rather infrequently throughout the semester. Perhaps the non-computer group heard about the computer applications and consequently developed stronger positive attitudes toward the concepts involved.

An analyses of the results of scores on the pre-test, midterm, final, and post-test for the computer and the non-computer groups are presented in Table 9. Statistical analyses were conducted both with percentage

TABLE 9

COMPUTER AND NON-COMPUTER
GROUP *PERFORMANCE ON FOUR
COURSE EXAMINATIONS

Examination	Computer Group Mean	Non-Computer Group Mean	t	p
Pre-Test	38.4	37.0	.40	NS
Midterm	88.6	82.4	2.16	<.05
Final	86.9	81.2	2.25	<.05
Post-Test	84.8	76.2	3.77	<.005

* All scores are expressed as percentage correct.

scores and with arcsine transformations of these scores conducted to correct for the fact that percentage scores are not interval measures. In each analysis it was found that, although the groups did not differ significantly at the onset of the semester, the computer group scored significantly higher on the midterm, final, and post-semester exams. These findings can be interpreted to indicate that the computer group learned more than the non-computer group throughout the course of the semester.

Since students used the computer for a limited number of linear exercises during Phase I of the study, performance on the post-test items corresponding to the sections of the content studied on the computer were analyzed (see Table 10). It is apparent that students using the computer re-

TABLE 10

MEAN SCORES ON POST-TEST
SECURED FOR TEN CONTENT AREAS

Content Area	Encycl.	Yrbks.	Stat.	Bio.	Biblio.
Computer Group	2.4	0.5	2.0	4.9	7.2
Non-Computer Group	2.4	0.8	2.0	4.9	6.9
Number of Items	3	1	2	6	8

Content Area	Dict.	Hdbks.	Serials.	Direc.	Gov't.Pubs.
Computer Group	1.0	4.0	5.0	2.5	5.8
Non-Computer Group	1.0	3.9	3.9	2.3	5.1
Number of Items	1	4	5	3	7

sponded the same as those who did not use the computer. It is not possible to attribute variations in performance on this exam to the use of the computer.

Phase II Formative Evaluation

In the second phase of the study project formation evaluation of the linear exercises was continued and served primarily to refine the content of the materials. Data from student performances were used as a check upon the value of the revisions made during Phase I. In addition, staff from Library Science and students hired as critics worked through the exercises to discover areas needing further clarification.

Formative evaluation of the simulation exercises served to bring them to a point of realism and smooth operation. With virtually every use of these materials, key words were changed and comments were deleted and added. The resulting exercises have been found to be acceptable to a number of students and professors in Library Science.

Phase II Summative Evaluation

At the beginning of Phase II a small scale study was conducted for the purpose of discovering the optimum set of materials and modes of presentation. For the two areas of Yearbooks and Dictionaries students were given the linear exercises in either book form or on the computer. some were given the linear program, some the quiz, and some both the program and quiz.

As Table 11 demonstrates, no significant differences were found among the groups on the quizzes administered immediately after the exercises. However, other measuring techniques including measures of criterion over

TABLE 11

MEAN SCORES FOR THREE INSTRUCTIONAL MODES AND TWO METHODS OF PRESENTATION FOR YEARBOOKS AND DICTIONARIES

Yearbooks

	Computer	Book	
Quiz	7	6	6.5
Program	12	7	9.5
Program & Quiz	5	5	5
	8	6	

Dictionaries

	Computer	Book	
Quiz	9	6.5	7.5
Program	9	8	8.5
Program & Quiz	7	9	8
	8	8	

time may reveal differences in performance. Based upon the data found it seems advisable to use booklets to present the exercises in the shortest form.

The results of the extensive study comparing the simulations with the linear exercises on a variety of criterial measures are being analyzed and will be available as a supplement to this research by September, 1970.

Again in Phase II changes in attitudes toward a number of computer and technology-related concepts were studied (see Table 12). The results indicate that indeed the attitudes did change, but that students seemed to develop more negative attitudes throughout the semester. These findings may be attributable, in part, to the fact that students were given a variety of materials for purposes of study and evaluation of the materials and techniques. Often students studied materials in first draft form. Perhaps results will be more positive in subsequent semesters.

TABLE 12

SEMANTIC DIFFERENTIAL SCALE RESPONSE

Phase II Computer Group

	Total Semantic Scale			Evaluative Scale		
	Pre	Post	Sig	Pre	Post	Sig
Computer	5.57	4.52	P<.01	5.36	4.30	P<.01
Automation	5.17	4.16	P<.01	5.01	4.21	NS
Technology	5.38	4.59	P<.01	5.23	4.64	NS
Teaching Machine	5.26	4.18	P<.01	5.14	4.02	P<.01
Programmed Instruction	5.41	4.29	P<.01	5.37	4.09	P<.01
Freedom	6.15	5.84	P<.01	5.96	5.87	NS
	df = 40			df = 20		

	Potency Scale			
	Pre	Post	Sig	
Computer	5.77	5.34	NS	
Automation	5.25	4.78	NS	
Technology	5.42	5.40	NS	
Teaching Machine	5.39	4.74	NS	
Programmed Instruction	5.39	4.73	NS	
Freedom	6.35	6.20	NS	
	df = 6			

A summary of student evaluations of the computer-assisted instructional materials is given in Tables 13 and 14. Although they ranked the materials low in producing creativity, the materials were positively evaluated for being challenging, unrepetitive, clear, being a good test of the students' mastery of the material, having reasonable standards for performance, and useful in accomplishing the objectives of the course. The students were unanimous in concluding that the material was not too difficult to be covered by computer-assisted instruction and yet that the material presented in this way was not trivial.

TABLE 13

COMPUTER ASSISTED INSTRUCTION EVALUATION QUESTIONNAIRE
Fall, 1969

A) Strongly agree B) Agree C) Neutral D) Disagree

	Percentage			
	A	B	C	D
1. CAI has been challenging in the sense of demanding concentration and intelligence.	22%	60%	12%	6%
2. CAI was stimulating, requiring independent and creative thinking.	6%	25%	28%	41%
3. Too much material was presented to be adequately covered in the time allotted.	16%	9%	9%	66%
4. There was unnecessary repetition.	0%	3%	6%	91%
5. The material was well organized.	25%	50%	19%	6%
6. The material had clear explanations.	9%	50%	22%	9%
7. Standards for student performance were reasonable.	28%	44%	19%	9%
8. The review sections were a good test of students' mastery of the material.	31%	38%	9%	22%
9. There was opportunity for student participation and criticism.	31%	45%	12%	12%
10. The material was too difficult to be covered by CAI.	0%	0%	3%	97%
11. The material was trivial.	0%	0%	19%	81%
12. CAI was useful in accomplishing the objectives of the course.	31%	47%	22%	0%
13. The material should be presented faster in CAI.	6%	3%	22%	69%
14. The material should be more in depth.	19%	28%	28%	25%
15. The orientation to the use of the terminal was adequate.	34%	57%	3%	6%

TABLE 14

COMPUTER ASSISTED INSTRUCTION EVALUATION QUESTIONNAIRE

Winter, 1970

A) Strongly agree B) Agree C) Neutral D)disagree

	Percentage			
	A	B	C	D
1. CAI has been challenging in the sense of demanding concentration and intelligence.	24%	52%	24%	0%
2. CAI was stimulating, requiring independent and creative thinking.	18%	40%	24%	18%
3. Too much material was presented to be adequately covered in the time allotted.	30%	40%	6%	24%
4. There was unnecessary repetition.	0%	12%	6%	82%
5. The material was well organized.	24%	52%	18%	6%
6. The material had clear explanations.	18%	58%	18%	6%
7. Standards for student performance were reasonable.	18%	76%	6%	0%
8. The review sections were a good test of students' mastery of the material.	12%	58%	18%	12%
9. There was opportunity for student participation and criticism.	52%	30%	18%	0%
10. The material was too difficult to be covered by CAI.	0%	0%	18%	82%
11. The material was trivial.	0%	0%	18%	82%
12. CAI was useful in accomplishing the objectives of the course.	46%	24%	24%	6%
13. The material should be presented faster in CAI.	6%	6%	6%	82%
14. The material should be more in depth.	18%	30%	18%	34%
15. The orientation to the use of the terminal was adequate.	6%	52%	24%	18%

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Computer-assisted instruction has helped to correct dissatisfaction in library education by making available a type of education in which reference situations have been simulated. These kinds of problems with opportunities for individual responses have allowed, for instance, more interaction between auto-teachers and students. Situations have been set up, for example, in which the computer has acted as the patron of the library and the student as the librarian. The computer has posed the questions, and the students have responded. Because of the difficulties students have in getting professional experience in libraries before graduation from library school, this is a good reason to have simulated interaction in the form of laboratory experience.

Individual performance has also been evaluated throughout the instruction period. Proficiency examinations have, for example, been developed for pre-testing. By the kind of evaluation which has been done, students' abilities and performances have been judged at various points in the course, rather than waiting until examination periods. Thus, the instructor has been able to revise the objectives, methodology, and content of his courses to meet the needs of individuals.

The purposes of these materials were to help library science students at the master's level to become acquainted with a wide spectrum of representative reference materials and to learn to use these in meeting the informational needs of library patrons.

In determining the means to accomplish these purposes, pre-tests for determining propaedeutic skills and program-acquired skills were devised. Terminal materials for defining the behaviors which the program was designed to produce were also prepared and administered.

Materials were then developed to accomplish the objectives of the program. Annotations were, for example, written for 167 reference works and 850 questions having to do with these tools were compiled. These annotations and questions were organized into a linear program. The questions were placed at different locations in the program in order to help the students learn the nature of the sources and to differentiate among them for the selection of tools to aid in meeting the informational needs of patrons. The great advantage of employing the computer during this development was that of collecting and summarizing the student response data to be used as the basis for revision.

The programmed exercises were coded into File Oriented Interpretive Language (FOIL) entered into the computer and tried out with fifty-eight people. The computer programmer has also rewritten FOIL so that it is more flexible, efficient, and inexpensive. This language has been documented

with a manual for authors and programmers in Appendix D.

At the same time, reference interviews in Grand Rapids, Ann Arbor, and Detroit, Michigan libraries were monitored and recorded for use as simulated case studies. These exercises, providing opportunities for interaction between auto-teachers and students, were then developed. In these situations the computer acts as the patron and the student as the librarian. The computer poses problems and the student responds. A scheme has been devised for programming these interactive simulated exercises, which have been coded into FORTRAN and entered into the computer (see Appendix E).

Diagnostic examinations for defining the behavior which the program was designed to produce were prepared and administered. The materials described above were tested by fifty-eight students on the Ann Arbor campus. This student testing was done to discover if these programs could readily be understood, discriminated among, and responded to. The materials were also field tested at Wayne State University, Eastern Michigan University, and Western Michigan University. A national seminar on computer-assisted instruction in the education of reference librarians was also held for library science faculty, and demonstrations and testing of the program were made at this time.

At the beginning of the testing period, one or two students were asked to go through the program; it was then revised before being tested with more students. Eventually the materials were tested by the entire class, but revision took place at each step. At each of these stages, the materials were evaluated by the information recorded by the computer and from students' comments and performances.

Thorough records were kept of these student responses, which were collected and summarized for revision purposes. Through this it was learned, for instance, that some of the programs needed to be revised to accommodate more flexible responses; and this was accomplished. The materials were then revised according to the information recorded by the computer and gained from feed-back sheets and discussions held with individual students. Some materials were eliminated, others were written, and many were revised. This process was gone through several times.

The group using the computer scored significantly higher on midterm, final, and post-semester examinations than did another control group which did not use the computer. The latter group, however, improved more in their attitude toward computer technology than did the group which used the computer.

In the use of the linear, tutorial exercises, no significant differences were found among the groups which used these in a programmed learning book and those which used the computer. Based upon the data found, it seems that although the computer was useful in developing these exercises, it may be advisable to use them in booklet form. In the case of the simulated exercises, however, the complexity of both the materials and the student responses argue for computer-based development and administration.

The results pointed to the fact that the students saw the experience with computer-assisted instruction, in general, as a positive one, although they made many constructive criticisms. Although they ranked the materials low in providing for creativity, the materials were positively evaluated for being challenging, unrepetitive, clear, a good test of the students' mastery of the material, having reasonable standards for performance, and useful in accomplishing the objectives of the course. The students were unanimous in concluding that the material was not too difficult to be covered by computer-assisted instruction and yet that the material presented in this way was not trivial.

The project also made some modest contributions to the area of computer programming for computer-assisted instruction. FOIL, originally designed by John Hesselbart and Karl Zinn at the Center for Research on Learning and Teaching, existed before the Library Science project began. The language had been developed over a period of time, and as changes and additions were made, the interpreter became clumsy. It was decided that the development of FOIL had advanced to the point where the language could be stabilized and an efficient interpreter could be written. During this project the final specifications for FOIL were written and the reorganization of the interpreter was accomplished.

It was anticipated that the revision would be finished by September, 1969, so that the exercises to be run by the Library Science students in the fall would use the new FOIL. The task of rewritting FOIL turned out to be a greater task than expected, and was not finished until late April, 1970. In the meantime, the Library Science exercises have been running under the old version of FOIL. It is estimated that the new version of FOIL will result in savings of as much as 25% in computer costs.

The original design of FOIL came from an idea for a substitute for flowcharting. The goal was to create a simple, straightforward language that non-programmers (i.e., subject experts, professors in any discipline) could use to write computer programs for computer-assisted instruction. The language has a small number of statement types and a simple syntax, so it is easy for a non-programmer to learn. A FOIL program looks much like an outline, which makes it easy to read and understand the flow through the program.

In the development of final specifications for FOIL, several new features as well as improvments have been added to the language. For example, the IF statement did not allow for an ELSE clause. This was easy to add, and it makes programs with several alternative conditions to be tested easier to read. Also improved was the capability of FOIL for on-line debugging of programs by the program author.

Much of the internal workings of the FOIL interpreter were reorganized in order to make it run more efficiently. The biggest changes were in the symbol table structure, the method of evaluating expressions, and in the handling of input/output. The latter of these should be responsible for most of the improvements in the performance of FOIL.

Recommendations

These materials will continue to be used on a regular basis at The University of Michigan in the teaching of library science. They can also be utilized by other institutions for education in graduate programs of library science. The ideas learned are being communicated to educators at other library schools, and the procedure may readily be adapted on other computer-based systems.

Two doctoral dissertations are in the process of being developed in connection with this project. The first will seek to determine if students can learn the content of a part of a basic reference course through computer-assisted instruction, if there are differences in learning when different computer-assisted teaching strategies are used, and if it is feasible to reduce costs of computer-assisted instruction by using one terminal for several students at the same time. This study will test two hypotheses: (1) On items written to test knowledge recall, library school students enrolled in a basic reference course will learn as much from a computer-assisted instruction program based in inquiry logic as they will from computer-assisted instruction based on tutorial logic, and (2) On items written to test more complex instructional objectives, library school students enrolled in a basic reference course will learn as much from computer-assisted instruction based on a tutorial logic as from a computer-assisted instruction program based on inquiry logic.

The second dissertation will be based on an experiment which will test the hypothesis that the reference course can be taught as effectively by independent study, utilizing computer-assisted instruction and individualized work in the library, as it can be by mass educational techniques.

It is also recommended that this technique be used to develop and test materials for other courses in library science, such as those in the bibliography of the humanities, the social sciences, and the sciences.

APPENDIX A

LINEAR PROGRAMS

ENCYCLOPEDIAS

Encyclopedia Britannica. 14th ed. 24 v.

ARRANGEMENT: Letter-by-letter alphabeting. This is a strict alphabetical approach which disregards spaces between words. Thus, an article on "Newark" would precede one on "New York."

SPECIAL FEATURES: Outstanding historical approach to topics. Technical and in depth treatment of science. Bibliographies on more important topics. Supplemented by annual Book of the Year.

The index in v. 24 is useful for small topics. Check the most specific entry in the index. It has four parts:

1. Index to v. 1-23.
   Entries in boldfaced capitals represent articles in the encyclopedia; entries in lightfaced type refer to information in the text of various articles, in an illustration, or on a map.
   EXAMPLE:

   FELONY 9-160b — General reference
   accessory 1-74a — Subhead and reference

   "9" in this example is the volume; "160" is the page. "b" is the quarter of the page on this scheme:

   a c
   b d

2. Atlas by Rand-McNally.
3. Index to atlas.
4. List of contributors.

Would Encyclopedia Britannica have:

A. Material on fairly obscure literary figures in the history of British literature?
   Yes--is good for British literary topics
B. For the 1960 population of Grosse Pointe, Michigan, would it be wisest to turn first to Michigan in the text?
   No--better to check the index for Grosse Pointe
C. An extensive discussion on the theory of knowledge with an attached bibliography.
   Yes--has extensive treatment of scholarly topics

Encyclopedia Americana. 30 v. including index. 1829-

ARRANGEMENT: Word-by-word alphabeting. This means that the spaces are regarded in the filing. Thus, an article on "New York" would precede one on "Newark."

SPECIAL FEATURES: Strong on U.S. and South American topics. Good contemporary coverage of the arts, social sciences, and geography. Pronunciation guide. Supplemented by Americana Annual.

Index:

LIBEREC, Czech. 17-345	Main article entry
CUTWORM 8-345; 19-510	Main article entry followed
Army Worm 2-309	by secondary references
Alachua, lake, Fla. 25-36	Entry on subject for which there is no main article

Would Encyclopedia Americana have:

A. An article on American life insurance written by an expert?
   Yes--strong on American topics and written by specialists
B. A long article written in French on the history of the Near East?
   No--English language only
C. Information on the moon appropriate for a child in the fourth grade?
   No--this is an adult encyclopedia
D. Would East River precede Eastern Star in the arrangement?
   Yes--word-by-word-alphabeting

Collier's Encyclopedia. 24 v.

ARRANGEMENT: Letter-by-letter alphabeting.

SPECIAL FEATURES: Emphasizes modern aspects of topics. Transparency overlays. A bibliography with annotations is found in the last volume and is designed for the person who seeks self-education. It includes only English in-print titles which are listed in graded order in each classification. The emphasis is on practical books. The bibliography is indexed.

Index:

CIVIL WAR — Caps indicate article on subject
Clouds — Boldface lower case indicates information on a subject for which there is no separate article.

The entries are indicated by volume, page, and quadrant:

a c
b d

Would the following be found in Collier's?

A. An article on Afghanistan with a bibliography attached?
   No--the bibliographies are in the last volume
B. A list of philosophy books in Greek?
   No--it includes only English in-print titles
C. A list of how-to-do-it books for the amateur photographer?
   Yes--it is helpful for self-education

ENCYCLOPEDIAS--Review questions

Where would you find:

1. An article on Albia, Iowa?
   Encyclopedia Americana
2. A scholarly article about an obscure British historian in the 19th century?
   Encyclopedia Britannica
3. An illustrated article for adults on the electron microscope with a separate, graded bibliography in the last volume?
   Collier's Encyclopedia

New Century Cyclopedia of Names. 3 v. 1954.

SCOPE: Pronunciation and basic facts about 100,000 proper names, including

persons, places, events, literary works and characters, works of art, and mythological and legendary persons and places. Biographical resumes, population, area, and statistics when appropriate.

SPECIAL FEATURES: Appendices include lists such as chronological table of world history, lists of rulers, chiefs of state, and other notables, genealogical charts, and tables of popes.

Would this work have:
A. Identification of Beaver Islands?
   Yes--it identifies proper nouns
B. Identification of beavers?
   No--it has proper names
C. The pronunciation of the surname Campinchi?
   Yes--it has pronunciations of proper nouns
D. The name of the current pope?
   No--the work was published in 1954

The Columbia Encyclopedia. 3rd ed. 1963.

SCOPE: Condenses topics found in multi-volume works. Lists every town and city of the U.S. with a population of 1,000 or more. An entry for every proper noun in the King James Version of the Bible. Pronunciation given. Biography.

SPECIAL FEATURES: 20 maps and 42 full page illustrations of subjects, e.g., "Birds".

Would this work have:
A. A brief biography of Alfredo Casella, an Italian composer who died in 1947?
   Yes--it has biographies
B. A definition of the word "serendipity"?
   No--it is an encyclopedia, not a dictionary
C. A detailed map of Wayne County, Michigan?
   No--with only 20 maps you could not expect a detail for a county
D. The population of Tryon, Oklahoma, which has about 300 people?
   No--it does not have 1,000 people
E. A multi-page biography of Lincoln?
   No--it is too concise for this

Compton's Pictured Encyclopedia and Fact-Index.

SCOPE: Each volume has main text and fact-index, both of which contain data. Fact summaries follow state articles, continent articles and articles on countries. These include charts, graphs, maps, drawings (e.g., explanations of machines), tables, lists, and text.

SPECIAL FEATURES: For children and young people. Many illustrations. Bibliographies at end of main articles.

Would Compton's have:
A. A diagram of a tachometer?
   Yes--it has explanations of machines

B. A map of Alaska suitable for children?
Yes--it has maps suitable for children

The World Book Encyclopedia. 20 v. 1967.

ARRANGEMENT: Word-by-word alphabeting.

SPECIAL FEATURES: For elementary through secondary school students
Illustrations, including many in color. Graded bibliographies.
Pronunciation.

Would World Book have:
A. The pronunciation of the Aisne River?
Yes--it has pronunciation
B. An article on atomic energy for a physicist?
No--it is for children and young people

ENCYCLOPEDIAS--Review questions

Where would you find:
1. An illustrated article with several maps and a graded bibliography on North Dakota suitable for children?
World Book Encyclopedia; Compton's Encyclopedia
2. Who was Ceres?
New Century Cyclopedia of Names; Encyclopedia Britannica; Encyclopedia Americana; Collier's Encyclopedia
3. A fact summary in the index for the U.S. with several illustrations suitable for young people?
Compton's Pictured Encyclopedia and Fact-Index
4. A very brief explanation of Confucianism complete with pronunciation?
Columbia Encyclopedia; New Century Cyclopedia of Names

ENCYCLOPEDIAS--Post test

Where would you look for:
1. Selected, annotated bibliographies on history, law, political science, and government conveniently located in a single volume?
Collier's Encyclopedia
2. An encyclopedia index which also provides definitions and basic facts?
Compton's Pictured Encyclopedia and Fact-Index
3. Identification and pronunciation of the obscure folklore figure Gluskabe?
New Century Cyclopedia of Names
4. Information on official colonial policy immediately prior to the Fall of Dienbienphu?
Encyclopedia Britannica; Encyclopedia Americana, Collier's Encyclopedia
5. A study aid in outline form for children?
World Book Encyclopedia
6. With which Roman god is the Greek god Zeus identified?
New Century Cyclopedia of Names; Encyclopedia Britannica, Encyclopedia Americana; Collier's Encyclopedia; World Book Encyclopedia

The Americana Annual. 1923-

SCOPE: Events of the previous year, chronology, biography, illustrations, and obituaries. Reviews national literatures.

SPECIAL FEATURES: Five-year cumulative indexes.

The 1968 Americana Annual would give information on which of the following:

A. The more important publications in Spanish literature in 1967?
   Yes--literary events in national literatures are summarized, noting works and authors
B. A biography of Carl Sandburg, who died in 1967, with photographs?
   Yes--has obituaries
C. Events which occurred at the U.N. in 1968?
   No--1967's events are reported
D. A list of notable motion pictures released in 1967?
   Yes--includes casts and credits under "Motion Pictures" entry
E. The inauguration ceremonies for Lyndon Johnson?
   No--wrong year

Britannica Book of the Year. 1938-

SCOPE: Events of the previous year. Date of publication on back but also "Events of 1966", etc. to actual period covered. Calendar and holidays for year to come. Chronology of events of year past. Biography. Lists of obituaries, societies and associations, education--directories, games and sports--records, portraits, new words and meanings, etc. Bibliography with some articles and Encyclopedia Britannica films also included. Good for library topics.

ARRANGEMENT: Dictionary with index. Index cumulates.

SPECIAL FEATURES: Illustrations, including many small maps in text.

The 1968 Britannica Book of the Year can be used to answer which of the following questions:

A. When was Guy Fawkes Day in 1968?
   Yes--calendar entries given for 1968
B. When was San Jose State College founded?
   Yes--has directory information for universities and colleges in supplementary section
C. What important event took place on July 6, 1968?
   No--has 1967 chronology only
D. Which building at Expo 67 did R. Buckminster Fuller design?
   Yes--biography section has entry for Fuller

Collier's Year Book. 1939-

SCOPE: Events of the previous year; photos, maps, sports, politics, science, arts, etc. Biography under "Personalities of the Year" with portraits.

SPECIAL FEATURES: Chronology, obituary list, list of outstanding non-fiction books of the year, index. Bibliographies in last volume.

Would the 1967 Collier's Year Book have:
A. Summaries of principal murders committed in the U.S. in 1966?
   Yes--under "Crime and Crime Prevention"
B. Pictures of Luci Johnson's wedding?
   Yes--under "Washington, D.C." article
C. An article on the 1967 activities of Canada's Lester Pearson?
   No--only 1966 events
D. Major economic developments in South Dakota during 1966?
   Yes--under "South Dakota"

World Book Yearbook. 1922-

SCOPE: Supplement to the encyclopedia. Events of the previous year. Chronology, photographs, maps, charts. Two volumes integrate material with encyclopedia. Color transparencies. "Deaths" list with brief information.

SPECIAL FEATURES: Cumulative index to articles mentioning the year.

Would the following be found in the 1969 World Book Yearbook:
A. What important event took place on April 4, 1968?
   Yes--has a chronology of events of previous year
B. The world disasters that occurred during 1968?
   Yes--listed under "Disasters"
C. Who won the major awards in the area of children's literature in 1968?
   Yes--awards listed under "Literature for Children"
D. What notable people died in 1968?
   Yes--listed under "Deaths of Notable Persons"

Compton Yearbook. 1958-

SCOPE: Annual supplement to Compton's Pictured Encyclopedia. Summaries and interpretations of outstanding events of previous year. Topical arrangement. Section of revised articles reprinted from main set during year. Pictures, maps, charts, diagrams. Five-year cumulative index to text and illustrations.

SPECIAL FEATURES: Chronology for past year. Calendar of holidays for present year.

Would the following be found in the 1963 Compton Yearbook:
A. The 1962 opening of Philharmonic Hall in New York City?
   Yes--reports previous year's events
B. An article reprinted from the 1963 Compton's Pictured Encyclopedia about the uses of plants?
   Yes--reprints revised articles
C. Reference in the index to a 1959 Yearbook article on Lyndon Johnson?
   Yes--indexes past five years
D. What happened on February 7, 1963 in Germany?
   No--only 1962 events in chronology

YEARBOOKS--Encyclopedia yearbooks--Review questions

Where would you find:

1. An article on last year's domestic events in Iran with a brief summary of data on that country?
   Collier's Encyclopedia Yearbook; Compton Yearbook; Britannica Book of the Year; Americana Annual
2. A world survey of last year's literature presented by country?
   Britannica Book of the Year; Collier's Encyclopedia Year Book; Americana Annual
3. A special report of South America with color illustrations and map transparencies?
   World Book Yearbook

Europa Year Book. 2 v. 1926-

SCOPE: Annual. Descriptive, statistical, and directory information for organizations and countries of the world.

Contents:

I. United Nations - description, purpose, organization, functions and publications of agencies, office addresses, personnel, Charter.

II. International organizations - activities, addresses, names of principal officers. Includes financial, industrial, educational, cultural, political and scientific organizations. Alphabetical arrangement with index at end of volume I.

III. Countries in alphabetical order.
   1. Brief information on location, climate, flag, capitol, recent history, sports, holidays, constitution, government.
   2. Statistical survey- area and population, agriculture, forestry and fishing, mining, industry, finance, imports, exports, tourism, transport, communications, education.
   3. Addresses, names of officials- government, embassies, political parties, judicial system, religion, press, publishers, radio and TV, finance (banks and insurance companies), trade and industry (chambers of commerce, employer's organizations, trade unions, etc), transport (railways, roads, shipping, airlines), tourism (travel agents, theatres, orchestras, festivals), atomic energy, universities and colleges, currency exchanges.

Would the 1968-69 Europa Year Book have:

A. Major activities of the World Health Organization in 1967?
   Yes--year's activities summarized
B. Republic of Guinea's population?
   Yes--gives population figures
C. Biographical information about Sir Peter Garran, British Ambassador to the Netherlands?
   No--only gives his name

D. The address of Angelus Novus, an Italian religious periodical?
Yes--gives directory information for religious press

International Yearbook and Statesmen's Who's Who. 1953-

SCOPE: An annual similar to Europa but less detailed. Descriptive and directory information on U.N., its agencies and on intergovernmental, international and national organizations; charts depicting structure of foreign ministries of the five great powers; facts and statistics about political, commercial and social matters in every country; biographies of world leaders in government, industry, commerce, religion and education.

Would the 1968 International Yearbook have:
A. How many tons of hard coal Poland produced in 1967?
Yes--statistical tables included
B. The name of Malaysia's Minister of Finance?
Yes--under "Cabinet" listing for Malaysia
C. Alan Barth's office address?
Yes--in "Who's Who" section
D. Information on who can join the English-Speaking Union?
Yes--gives membership requirements

Political Handbook and Atlas of the World. 1927-

SCOPE: Annual. For countries of world and U.N. gives governmental structure, names of chief officials, political parties with their programs, names of leaders, recent political events, newspapers with political affiliation, proprietor or editor, circulation.

ARRANGEMENT: Alphabetical by country.

SPECIAL FEATURES: Colored map supplement of world by areas.

Could the following be answered by the Political Handbook and Atlas of the World:
A. How do Australia's Liberal Party and Country Party differ?
Yes--gives aims and programs for political parties
B. Is the Times of India a Nationalist newspaper?
Yes--affiliation given
C. When was Mrs. Indira Gandhi, India's Prime Minister, born?
No--only name and date of assuming office given

Statesman's Year-Book. 1864-

SCOPE: Annual. Reliable and concise political, economic and social data on the U.N., other international organizations, the Commonwealth, U.S., and other countries of the world. Statistics usually 2-4 years old.
Contents:
I. Organizations - origin, functions, membership, organization, address, principal personnel, budget.
II. Countries - description and statistics about history, constitution, government, name of ruler, area, population, religion, social welfare, instruction, crime, justice, state

finance, defense, production and industry, agriculture, commerce, navigation, communications, banking and credit, money, weights and measures, names of diplomatic representatives, etc.

SPECIAL FEATURES: Bibliography of statistical and other books about each country, separate entries for each state in U.S., place-name index.

Would the following be found in the 1968-69 Statesman's Year-Book:

A. How many miles of new roads and tracks did Iraq develop during 1967?
   No--too recent, statistics lag is 2-4 years
B. Who is the president of the Presidium of the Supreme Soviet in Kirghizia?
   Yes--gives chief government officials
C. What is Bolivia's state recognized religion?
   Yes--includes religious information
D. What does UNESCO do?
   Yes--describes activities of U.N. agencies
E. What was the 1966 per capita income in Ann Arbor, Michigan?
   No--too specific an area. Gives figures for Michigan, however

Yearbook of the United Nations. 1946/47-

SCOPE: History, structure, functions, and achievements of U.N. and agencies. Summaries of debates, references to or texts of documents, such as resolutions, rules of procedure, trusteeship agreements, and reports of committees. Two-year lag in publication.

SPECIAL FEATURES: Appendix has chronology of U.N., list of nations with statistics and bibliography, names of delegates by country, addresses of U.N. information centers, subject index and name index.

Would the Yearbook of the United Nations have:

A. A summary of discussions in the General Assembly concerning the peaceful uses of outer space?
   Yes--has brief resumes of U.N. discussions
B. Documents of cases which the International Court of Justice dealt with last year?
   No--there is a two-year lag in coverage
C. The names of the representatives to the U.N. from Nigeria?
   Yes--delegates are listed by country
D. The work done by UNESCO during the preceding year?
   Yes--has summaries of achievements of U.N. agencies

YEARBOOKS--Year books--Review questions

Where would you find:

1. Who are Algeria's present cabinet members?
   Political Handbook and Atlas of the World; Statesman's Year-Book; Europa Year Book
2. Information on education in Nauru which is part of the Commonwealth?
   Statesman's Year-Book; Europa Year Book

3. Where did Gaganvihari Mehta, an Indian diplomat, receive his education?
   International Yearbook and Statesmen's Who's Who
4. What were the results of the last general election in Belgium?
   Europa Year Book; Political Handbook and Atlas of the World
5. What amendment did Ceylon propose before the General Assembly concerning representation of China in the U.N.?
   United Nations Yearbook

Information please. 1947-

SCOPE: Sports, history, business, cross-word puzzle guide, income tax, social security, missiles, United Nations, holidays, chronology, religion, awards, census data, celebrated persons, directory of colleges, diplomatic personnel, forms of address,maps, parliamentary procedure, postal regulations, societies and foundations, weather, geography, world statistics, world photo review, picture review for preceding year, salaries, etc.

Would you find the following in the 1969 Information Please:
A. A black/white map section?
   Yes--has a map section
B. A news chronology for 1968?
   Yes--has chronology for previous year
C. The head of Villa Maria College in Erie, Pa.?
   Yes--has section on colleges
D. A picture of President Johnson and Premier Kosygin at the Glassboro talks in June, 1967?
   No--picture review for preceding year only

World Almanac. 1868-

SCOPE: Annual. Up-to-date, reliable, miscellaneous information with emphasis on the U.S. Brief geographic, governmental, and political summaries for foreign countries. Facts and statistics on industrial, social, political, religious, educational, financial subjects, agriculture, actors and actresses, ambassadors and ministers, associations and societies, awards, colleges and universities, state and federal government, politics, election returns, theatre, books, postal regulations, sports records, manufacturers, noted personalities, great cities of North America, major events of previous year, salaries, etc.

SPECIAL FEATURES: Chronology of major news events, colored maps and flags of countries. Alphabetical subject index.

Would the 1969 World Almanac have:
A. The names of the 1968 National Democratic Committeemen from Michigan?
   Yes--they are given for each state and party
B. The average 1968 retail price of a used 1965 Ford Galaxie 500?
   Yes--there is a table of used automobile prices for last four years
C. Major events in Czechoslovakia on August 20-21, 1968?
   Yes--in "Chronology"

D. A history and description of Paris, France, its business, educational and cultural aspects?
No--only U.S. and Canadian cities included in city profiles
E. Which country won the most gold medals in the 1968 Winter Olympics?
Yes--gives sports records

The Negro Almanac. 1967.

SCOPE: Chronology, documents, landmarks, civil rights organizations and their leadership, legal status of Negro, population, family, employment, income and expenditures, labor, government assistance programs, voter registration, public offices, education, military, sports, famous personalities, religion, organizations, "firsts", press, slavery, Africa, recipes, and bibliography. Especially strong for biography, statistics, and chronology.

The Negro Almanac has which of the following:
A. A biography of Frederick Douglass, the Negro abolitionist?
Yes--many biographies are included
B. A list of books about Negroes written for children?
Yes--has bibliographies listed by category
C. Descriptions of college scholarships available to Negroes?
Yes--the Negro in education is covered
D. Statistical tables comparing white and non-white expenditures for food?
Yes--has detailed statistical tables
E. A history of the Negro in France?
No--covers only U.S., the Americas, and Africa

Facts on File. 1940-

SCOPE: Weekly. 8 to 16 page digest of world news. Twice each month computer-prepared index. Indexes supersede each other twice a month and consolidated quarterly, providing three-month, six-month, nine-month, annual, and five-year indexes. Index entries are under name and subject headings and give: (1) description of the corresponding item in the News Digest, (2) the date of the event, (3) page in News Digest, (4) the marginal letter parallel to the item on the News Digest page, (5) column.

Would the following be found in the 1968 Facts on File:
A. How and where did Dr. Lev Landau die?
Yes--obituaries are included. Locate through index
B. Did McCarthy or Kennedy win the Oregon presidential primary?
Yes--listed in index under "Oregon"
C. Is there a story about the 1967 Arab-Israeli War?
No--only 1968's events given
D. Who was elected to the Ann Arbor City Council in April, 1968?
No--not of world importance
E. Who won the Bancroft Prize for history in 1968?
Yes--various awards and recipients listed

YEARBOOKS--Almanacs--Review questions

1. A news summary of the New York Democratic primary held in June, 1968?
   Facts on File
2. The scores of the world series games from 1903 to the present?
   Information Please Almanac; World Almanac
3. The founder of the Tuskegee Institute?
   Negro Almanac

YEARBOOKS--Post test

Where would you find:
1. Which countries sponsored the resolution to hold further conferences on the peaceful uses of atomic energy in the U.N.?
   United Nations Yearbook
2. Are there any good books out yet on the proceedings of Vatican II?
   Collier's Year Book; Britannica Book of the Year; Americana Annual
3. What is the amount of pay of a vice-admiral in the Navy with 12 years Service?
   World Almanac; Information Please Almanac
4. What is the currency of Norway and what is the present exchange rate for U.S. dollars?
   Europa Year Book
5. A summary of the events that took place between the Russians and the Czechs during the last week of July, 1968?
   Facts on File
6. What are the predominantly Negro colleges and universities in Tennessee?
   Negro Almanac
7. What are the programs of Malta's two leading political parties?
   Political Handbook and Atlas of the World; International Yearbook and Statemen's Who's Who
8. The meaning of a new scientific term coined within the last year?
   Britannica Book of the Year
9. Who won the first Indianapolis 500 race?
   Information Please Almanac; World Almanac
10. What is the predominant religion in Afghanistan?
    International Yearbook and Statesmen's Who's Who; Statesman's Yearbook, Europa Year Book

United Nations. Statistical Office. Statistical Yearbook. 1948-

SCOPE: Annual. Population, manpower, production summary, agriculture, forestry, fishing, mining, quarrying, manufacturing, construction, energy consumption, public finance, transport, communications, internal trade, external trade, balance of payments, international economic aid, wages and prices, national income, finance, housing, social statistics, education, culture.

SPECIAL FEATURES: Conversion tables. Country index. Sources for statistics frequently given. Supplemented by U.N. Statistical Office. Monthly Bulletin of Statistics.

Would the following be found in the 1967 Statistical Yearbook:

A. The name of the prime minister of Turkey?
   No--is not a directory, gives statistics
B. Which country produced the most tons of milk in 1966?
   Yes--gives agriculture statistics
C. How many passengers were flown on international flights by Danish airline services in 1966?
   Yes--gives transport statistics

United Nations. Statistical Office. Demographic Yearbook. 1948-

SCOPE: Annual. World-wide statistics of area, density, population growth, international migration, mortality, life expectancy, nuptiality and divorce.

SPECIAL FEATURES: Cumulative subject index at end.

Which of the following would be found in the Demographic Yearbook:

A. Natality statistics?
   Yes--gives population growth
B. Sports statistics?
   No--gives only demographic statistics
C. Mortality statistics?
   Yes--gives mortality data
D. Salary information?
   No--gives only demographic statistics
E. Exports and imports
   No--gives only demographic statistics

STATISTICS--General--Review questions

Where would you find:

1. How many tons of tin were produced in Bolivia in 1964?
   U.N. Statistical Yearbook
2. The average life expectancy for men in India?
   U.N. Demographic Yearbook
3. The average yearly income for a worker in Italy in 1966?
   U.N. Statistical Yearbook

U.S. Bureau of the Census. Census of the U.S.

SCOPE: I. Decennial census of population and housing. Census of population gives statistics on population of U.S., states, territories, and possessions: (A) Number of inhabitants. (B) General population characteristics for each state, county, rural, and urban area. Includes age, sex, marital status, race, nationality, citizenship, school enrollment, years of school completed, residence, number of married couples, families and households, country of birth, employment status, occupation group, industry group, and income of families. (C) Social and economic characteristics. (D) Detailed characteristics: distribution of population by sex and years of age as well as cross classification by sex and age by various population characteristics, such as race, nativity, citizenship, marital status, relationship to head of household, school enrollment, educational attainment, employment status, occupation, industry and income.
Subject reports include information on ethnic origin and race, fertility, families, migration, education, employment, occupation, industry and income. Each report concentrates on one subject.
Selected area reports.
Summary and analytical reports by census tracts.

II. Housing census includes, for example, age of structure, number of bedrooms, number of persons per room, renter or owner occupied, fuel, method of sewage disposal, air conditioning, washing machines, dryers, home freezers, television sets, and radios. Characteristics broken down by state, region, city, and city blocks (for cities of 50,000 or more).

III. Every five years:
Manufacturers
Business
Minerals
Agriculture

Weekly, monthly, quarterly and annual samples on employment, production, prices, wages, savings, and health.

Which items could be found in the Census of the U.S.:

A. The number of renter occupied housing units in Albany, New York having more than one bathroom?
Yes--gives statistics about structure and occupancy by city

B. Whether the 1960 census shows a growth or decrease in population in Salinas, California since 1950?
Yes--summary tables include comparative population figures for urban areas

C. The number of pharmacists who earned over $10,000 in 1959?
Yes--earnings are given by occupation

D. How many non-whites owned their own farms in Rhode Island in 1964?
Yes--five-year Census of Agriculture gives statistics on farmers' characteristics

U.S. Bureau of the Census. Statistical Abstract of the U.S. and Supplements. 1878-

SCOPE: Economic, political, and social data gathered from federal, international, and private organizations as well as individuals. Made up of tables and charts. Primarily national data with some information for regions and individual states. Data on agriculture, banking, business, communications, construction, education, elections, employment, expenditures, fisheries, foreign trade, forestry, geography, government, health, housing, immigration, income, law enforcement, manufacturers, mining, national defense, population, prices, recreation, science, social insurance, transportation, veterans affairs, and world economy.

SPECIAL FEATURES: Explanatory texts, maps, sources of statistics, weights and measures, detailed subject index.

Would the 1968 Statistical Abstract have the following:

A. The total resident population of the U.S. in 1967?
   Yes--gives population statistics
B. The number of farms in Michigan in 1964?
   Yes--gives agriculture statistics
C. The number of employees in the U.S. petroleum industry in 1966?
   Yes--gives manufacturing statistics
D. How many Ann Arbor residents own their own homes?
   No--question too specific

U.S. Bureau of the Census. The Statistical History of the United States, from Colonial Times to the Present. 1965.

SCOPE: Same type of statistics as Statistical Abstract: population, vital statistics, health and medical care, migration, labor, prices, national income and wealth, consumer income and expenditures, social security and welfare, education, crime, recreation, religious affiliation, land and water use, climate, agriculture, forestry and fisheries, minerals, housing, manufacturers, transportation, communications, power, services, foreign trade, business enterprise, productivity and technological development, banking and finance, elections and politics, armed forces and veterans, colonial statistics. Beginning date of retrospective coverage varies. Statistics up to 1962.

Would the following be found in The Statistical History of the United States, from Colonial Times to the Present:

A. Average annual earnings per full-time employee by major industry for 1938?
   Yes--in 1929-57 time period table
B. Acreage of oats harvested for 1926-30?
   Yes--acreage of crops by name given
C. The number of banks in the United States in 1933?
   Yes--number of banks by year listed

U.S. Bureau of the Census. County and City Data Book. 1952-

SCOPE: Supplement to Statistical Abstract. Includes statistics on agri-

culture, bank deposits, births, deaths, marriages, city government, climate, education, electric bills, employment, hospitals, housing, income, labor force, manufacturers, migration, mineral industries, population, presidential vote, retail trade, wholesale trade, hotels, auto repairs, motion picture theatres. Source citations. Maps. Includes only cities with 25,000 or more inhabitants. Summary data for states, regions, and metropolitan areas.

Which items could be found in the County and City Data Book:

A. The number of gasoline service stations in Rapid City, S. Dakota?
   Yes--gives statistics on retail trade by type of establishment
B. The mean January temperature in Windsor, Ontario?
   No--covers only the U.S.
C. How much money was spent for highways by Suffolk, Virginia?
   Yes--includes statistics of local government finance
D. How many births occurred in Dixon County, Nebraska according to latest census figures?
   Yes--gives birth statistics

STATISTICS--United States--Review questions

Where would you find:

1. The number of Methodists in the U.S. in 1935?
   Statistical History of the U.S., from Colonial Times to the Present; Statistical Abstract of the U.S.
2. The amount of money allocated to Michigan for its 1966 Head Start Program?
   Statistical Abstract of the U.S.
3. The population of Santa Monica, California each census year since 1890?
   Census of the U.S.
4. The median school years completed by people 25 and over in Buffalo?
   County and City Data Book

STATISTICS--Post test

Where would you find:

1. A table of U.S. postal rates from 1792-1957?
   Statistical History of the U.S., from Colonial Times to the Present
2. Figures on the divorce rate in the Netherlands, 1962-66?
   U.N. Demographic Yearbook
3. The number of new residential buildings constructed in Uruguay in 1961?
   U.N. Statistical Yearbook
4. How many tons of coal were produced in France in November, 1968?
   U.N. Monthly Bulletin of Statistics
5. What percent of Maryland's voters cast ballots in the 1964 Presidential election?
   Statistical Abstract of the U.S.
6. How many non-white males, age 20 to 24, worked as mail carriers in the Atlanta, Georgia metropolitan area?
   Census of the U.S.
7. Which city had the highest birth rate in 1960: Los Angeles; Detroit; Philadelphia?
   County and City Data Book

Slocum, Robert B. Biographical Dictionaries and Related Works: An international bibliography of collective biographies, bio-bibliographies, collections of epitaphs, selected genealogical works, dictionaries, biographical material in government manuals, bibliographies of biography, biographical indexes and selected portrait catalogs. 1967.

SCOPE: 4,829 collections of biographical information. Divided into universal biography, national or area biography, and vocational biography. Descriptive annotations for works in foreign languages and for English when titles do not indicate scope. All nations, occupations and times. Author, title, and subject indexes.

Would this book include:
A. A work titled Who's Who in Omaha? (a reference to this work)
   Yes--covers area biography
B. A reference to a dictionary of Polish poets?
   Yes--has vocational and national biography

Webster's Biographical Dictionary: A dictionary of names and noteworthy persons with pronunciations and concise biographies. 1966.

SCOPE: All times and places. Gives birth and death dates, nationality, occupation, family relationships, education, career, inventions or discoveries, names of works. Kept up-to-date, but contains few contemporary names in sports, theatre, movies, radio or TV. Has lists of rulers and officials of U.S. and other countries, popes, etc.

Would Webster's Biographical Dictionary have the following:
A. A list of works by Euripedes?
   Yes--names of works included
B. Pronunciation of the Chinese name Yung Cheng?
   Yes--pronunciations given
C. A list of U.S. ambassadors to Italy?
   Yes--lists of officials at end of volume
D. A picture of Cole Porter?
   No--no illustrations

International Who's Who. 1935-

AUTHORITY: Based on questionnaires.

SCOPE: Especially good for notables from minor nations. Gives year of birth, nationality, career, honors, awards, publications, address. Lists royal families by countries.

Would the following be found in the International Who's Who:
A. Audrey Hepburn's address?
   Yes--gives addresses
B. Who is the reigning king of Jordan?
   Yes--lists royal families by country

C. Positions held by Jomo Kenyatta?
   Yes--gives career information
D. A short biographical essay on Charles de Gaulle?
   No--no essays only biographical data

Current Biography. 1940-

AUTHORITY: Based on questionnaires and other published materials.

SCOPE: Monthly. Biographies of people in the news. World-wide coverage. Each biography is an article with careers, evaluations, addresses, and photographs. Bibliography at end of article. Necrology and list of persons classified by profession at end of volume.

ARRANGEMENT: Index cumulates from month to month in issues and year to year in yearbooks.

Would the following be found in Current Biography:
A. A picture of Sean Connery?
   Yes--photographs with biographies
B. A list of businessmen currently in the news?
   Yes--in classified list at end of volume
C. Biographic information on Ian Smith of Rhodesia?
   Yes--index locates volume he is in
D. Biographic information on Abraham Lincoln?
   No--living persons only

BIOGRAPHY--General--Review questions

Where would you find:
1. An informal biography and picture of Richard Burton?
   Current Biography
2. A concise biography of Napoleon Bonaparte?
   Webster's Biographical Dictionary
3. Who is the present ruler of Japan?
   International Who's Who

Biography Index. 1946-

SCOPE: Guide to biography of persons in all times and places. Sources include critical material, autobiography, letters, diaries, memoirs, journals, fiction, drama, poetry, bibliographies, pictorial works, and juvenile literature. Also books, periodicals, pamphlets, and obituaries from the New York Times. Analyzes collective biography. Also chapters in non-biographical books. English language publications only. Indicated bibliographies and illustrations.

FREQUENCY: Quarterly with annual and three-year cumulations.

ARRANGEMENT: Main index by name. Gives nationality, if other than American, dates, and occupation. Followed by list of materials with full bibliographical data. Each biographee is also entered by profession.

SPECIAL FEATURES: Works of collective biography designated by a star; juvenile literature marked by pyramid.

Would the following be found in Biography Index:

A. References to current articles on J. S. Bach?
   Yes--covers persons of all times and places
B. Where George Romney was born?
   No--does not give biographical information
C. A list of biographies on chemical engineers?
   Yes--in "Index to Professions and Occupations"
D. Reference to an obituary of Robert Frost?
   Yes--references to printed obituaries are listed

Essay and General Literature Index. 1900-

AUTHORITY: Collections to be indexed are voted on by librarians nominated by Reference Services Division of ALA.

SCOPE: Analytically indexes collections of essays and works of a composite nature. Books only. Lists many biographies, critical articles, and some bibliographies. Only twentieth century publications indexed but includes authors of all times and places.

FREQUENCY: Semi-annual with annual and five-year cumulations.

ARRANGEMENT: Author, subject, and in the case of documents, title. Under author are listed (1) author's works, (2) works about author, (3) criticism of individual works.

Would the following be found in Essay and General Literature Index:

A. Where can I find a list of essays about Marcel Proust?
   Yes--works about persons listed
B. Did Harper's magazine publish an article on Ezra Pound during July, 1967?
   No--no periodicals indexed
C. Where can I find a critical essay about Sinclair Lewis' Elmer Gantry?
   Yes--includes essays about individual works of authors

BIOGRAPHY--Indexes--Review questions

Where would you find:

1. A critical appraisal of Dostoevski's Crime and Punishment?
   Essay and General Literature Index
2. A juvenile biography of Andrew Jackson?
   Biography Index

The Dictionary of American Biography. 21 volumes and supplements. 1928-

AUTHORITY: Published under the auspices of the American Council of Learned Societies. Names for inclusion proposed by "authorities and specialists." Many contributors. Occasional errors, corrected in the reprint edition.

SCOPE: Excludes living persons, Americans who never lived in the territorial U.S., and British officers serving in the U.S. after Inde-

pendence. Includes those who have made "some significant contribution to American life" who died before 1940. Tries to "re-create and re-interpret" lives of "makers of American life and culture." Gives names, dates and, where possible, ancestry, parentage, childhood, experience, educational advantages, physical and social environment.

SPECIAL FEATURES: Bibliographies. Periodical supplemental volumes. Index (prepared by publishers) has (1) names of biographees with authors, (2) contributors and their subjects, (3) birthplaces arranged by state or nation, (4) schools and colleges attended by biographees, (5) occupations and (6) topics.

Would the following be found in The Dictionary of American Biography:

A. A lengthy biography of Ralph Abernathy, leader of the Southern Christian Leadership Conference?
   No--covers only dead persons
B. A reproduction of Washington crossing the Delaware?
   No--no illustrations
C. Where Robert Morris, American Revolution financier, is buried?
   Yes--includes information on death and burial
D. Has the Appleton Academy graduated any important Americans?
   Yes--"Schools and Colleges" index lists graduates under name of institution

National Cyclopedia of American Biography. 49 permanent volumes, 11 current volumes to date.

SCOPE: Includes living and dead. Governmental officials, educators, clergymen, professional men, industrial leaders. 600-6,000 word articles. Gives ancestry, education, positions, history of the institution, movement, or industry with which the career is identified. Especially good for obscure businessmen and industries. Portraits for each. Many facsimiles of signatures.

ARRANGEMENT: Arranged by subject and period groupings. Supplemented by current volumes which have living persons. Each volume of these is indexed.

Analytical indexes of names and subjects.
Pt. I and II. Vols.1-48
Pt. III. Current vols.

Indexes loose-leaf and revised when new volumes appear.

Would the following be found in National Cyclopedia of American Biography:

A. The maiden name of the wife of John Phillips Coolidge, Director of the Fogg Museum at Harvard?
   Yes--in current series
B. A portrait of Queen Elizabeth I of England?
   No--only Americans
C. Dates when Roscoe O. Bonisteel, Ann Arbor lawyer, served on the University of Michigan Board of Regents?
   Yes--in current series
D. A biography of Ernest Hemingway?
   Yes--in current volumes

Contemporary Authors. 1962-

SCOPE: Date of birth, birthplace, family background, pseudonyms, education, awards, politics, religion, address, career information, work in progress, complete bibliographies of books. Articles and books about authors. Author's comments on personal and literary interests. World-wide coverage.

ARRANGEMENT: Cumulative index in final volume of each year.

Would the following be found in Contemporary Authors:
A. What pseudonyms has Marjorie Prebble used in her writings?
   Yes--works listed with pseudonyms, if any
B. Does Luis Zalamea have any children?
   Yes--family members named
C. What schools did Mark Twain attend?
   No--only authors currently writing
D. What awards has David G. Simons received?
   Yes--honors and awards included

Who's Who in America. 1899/1900-

SCOPE: Biennial. Living persons only. People included by virtue of position or those who have done something noteworthy. Notable foreigners included. Gives name, birthplace, education, family data, career, achievements, awards, memberships, publications, clubs, address.

Would the following be found in Who's Who in America:
A. Dean Acheson's mother's name?
   Yes--names of parents given
B. Titles of books written by Charles de Gaulle?
   Yes--famous foreigners included
C. John F. Kennedy's place of burial?
   No--only living persons included
D. Ringo Starr's son's name?
   Yes--he's a notable foreigner. Children's names given.

Who was Who in America. 5 volumes. 1897-

SCOPE: Concise biographies of dead Americans from Jamestown Colony to the present. Includes some foreigners important in American history.

SPECIAL FEATURES: Historical volume contains chronology of historical and social events, lists of government officials, data on principal cities. Name index to whole set.

Would the following be found in Who was Who in America:
A. Paul Bunyan's mother's name?
   No--he's not a real person
B. The political activities of Benjamin Franklin?
   Yes--career activities given
C. Fidel Castro's academic degrees?
   No--only dead Americans included

D. King George III's death date?
Yes--he was important in early American history
E. Woodrow Wilson's occupation before he became President?
Yes--occupations are given

BIOGRAPHY--American--Review questions

Where would you find:
1. What book is Ngumbu Njururi working on?
Contemporary Authors
2. What famous Americans were born in Indiana?
Dictionary of American Biography
3. What was Millard Fillmore's birth date?
Who was Who in America; Dictionary of American Biography; National Cyclopedia of American Biography; Webster's Biographical Dictionary
4. Biography of F. Scott Fitzgerald with a portrait?
National Cyclopedia of American Biography; Current Biography
5. Leonard Bernstein's children's names?
Who's Who in America

Dictionary of National Biography. 63 volumes plus 6 supplements. 1885-

AUTHORITY: Signed, scholarly articles by specialists.

SCOPE: Evaluative biographies of dead inhabitants of the British Isles and her colonies including the U.S. to 1776. Coverage to 1950. Bibliography. Cumulative index to supplementary volumes (1901-1950).

Would the Dictionary of National Biography contain the following:
A. An evaluation of Myles Standish?
Yes--includes British colonists in the U.S. before 1776
B. A description of the childhood of Henry VIII?
Yes--gives lives of monarchs in detail
C. The names of the children of Queen Elizabeth II?
No--omits living persons
D. A sketch of Conrad Adenauer?
No--not British
E. Sources used for the biography of William Penn?
Yes--includes bibliographies

Who's Who. 1849-

SCOPE: Annual. Majority of biographies concern persons in British Commonwealth, but includes noted citizens of other countries. Gives family names, titles, degrees, orders and decorations, occupations, clubs, books published, addresses. Living persons only.

Would the following be found in Who's Who:
A. The name of a book written by John Jay McCloy, famous U.S. lawyer?
Yes--includes well known non-British persons
B. The various positions held at different times by Harold Wilson?
Yes--cites career and positions held
C. The academic degrees of Lyndon Johnson?
Yes--noted Americans included

D. The birth date of William Shakespeare?
No--includes only persons alive when volume appears

Who was Who. 5 volumes. 1897-

SCOPE: Brief biographies of British subjects and notable foreigners who died between 1897 and 1960.

ARRANGEMENT: Alphabetical. No cumulations, no index. Published at 10-year intervals.

Would the following be found in Who was Who:
A. Winston Churchill's birth and death dates?
No--only covers to 1960
B. Queen Elizabeth II's coronation date?
No--only dead persons included
C. Charles Marriott's profession?
Yes--career information given
D. Birth date and death date of Major Edward Fagan, late English military officier?
Yes--in 1951-60 volume

BIOGRAPHY--British--Review questions

Where would you find:
1. The birth date of Lloyd George, former Prime Minister of England?
Who was Who; Dictionary of National Biography
2. An evaluative biography of Oliver Cromwell?
Dictionary of National Biography
3. The academic degrees of Mary Quant, British fashion designer?
Who's Who

BIOGRAPHY--Post test

Where would you find:
1. Where was Howard Hughes born?
Who's Who in America; Current Biography; National Cyclopedia of American Biography
2. A long biography with a bibliography of James McNeill Whistler, 19th century American artist?
Dictionary of American Biography
3. The official positions held by Milovan Djilas, Yugoslav author?
International Who's Who; Contemporary Authors
4. Bibliographic information on a dictionary of French pseudonyms?
Slocum. Biographical Dictionaries and Related Works
5. The educational background of Saul Bellow, living American author?
Contemporary Authors; Who's Who in America
6. The exact death date of Aubrey Beardsley, English artist?
Who was Who
7. The pronunciation of Fa-Hsien, 4th century Chinese priest and author?
Webster's Biographical Dictionary
8. Location of a 1967 essay on Ionesco's Rhinoceros?
Essay and General Literature Index
9. Discussion of the career of Rabbi Stephen Wise, early 20th century

American religious leader?
National Cyclopedia of American Biography; Dictionary of American Biography;

10. Biography and listing of works of Alexander Pope?
Dictionary of National Biography

11. Location of recent periodical articles on Beethoven?
Biography Index

12. Birth and death dates of American evangelist Aimee Semple McPherson?
Who was Who in America; National Cyclopedia of American Biography

13. Chatty biography with portrait of Soupy Sales?
Current Biography

14. Birth date of living British actor Richard Attenborough?
Who's Who

BIBLIOGRAPHY

Besterman, Theodore. A World Bibliography of Bibliographies. 4th ed. rev. 5 volumes. 1965.

SCOPE: Lists 117,187 separately collated volumes of bibliography in 50 languages. Coverage through 1963. Includes bibliographies of books, pamphlets, broadsides, periodicals, music, maps, manuscripts, patents, etc. Collections of abstracts. Has special but not general library catalogs. International. Weaker in Slavonic and Oriental languages. Attempts to give equal space to sciences, humanities, and social sciences. In brackets after title is given number of entries, thus hinting at degree of completeness. No annotations. Works about but not in Oriental languages.

ARRANGEMENT: 15,829 subject headings in alphabetical arrangement. Chronological order by date of publication under each subject heading. Index to authors, editors, translators, and titles of anonymous and serial publications. Includes initials and pseudonyms.

Would the following be found in Besterman:
A. A listing of Japanese periodicals in Japanese?
   No--has works about but not in Oriental languages
B. A bibliography of Coptic literature printed in Russian?
   Yes--titles given in original languages
C. Works about Japanese theatre and drama?
   Yes--includes works about Oriental subjects
D. Evaluative annotations of a work by Lyle Saunders about the cultural relations in New Mexico?
   No--listings only, no annotations
E. A biography of Herman Melville?
   No--only bibliographies listed

Bibliographic Index. 1938-

SCOPE: English and foreign language bibliographies, including those published separately as books or pamphlets and those appearing as parts of books or pamphlets. Also includes bibliographical lists from periodicals. Sold on service basis.

FREQUENCY: Semi-annually with bound annual and three-year cumulations.

ARRANGEMENT: Under each subject, books, pamphlets, and articles listed by author.

Would the following be found in Bibliographic Index:
A. A bibliography listing recent military books?
   Yes--under "Military" subject heading
B. A listing of a 1925 master's thesis from The University of Michigan "Economic Adaptation to a Changing World Market"?
   No--no approach, also coverage began in 1937
C. Are there any recent bibliographies about information storage and retrieval systems?
   Yes--found under subject heading

BIBLIOGRAPHY--Bibliography of bibliography--Review questions

1. A dutch bibliography on Javanese literature?
   Besterman. A World Bibliography of Bibliographies
2. An article on the upper Mississippi valley with an annotated bibliography?
   Bibliographic Index

American Book-Prices Current. 1894/95-

SCOPE: Annual. Books, serials, broadsides, maps, autographs, and manuscripts sold at auction in New York and London. All languages and periods. Gives author, title, edition, imprint, size, binding, condition, where sold, date of sale, catalog lot number, price. Has five-year cumulative indexes.

Would the following be found in this source:
A. The condition and cost of a map of Mexico by J. Hutawa produced in 1863?
   Yes--maps included, states condition and price
B. How much money Nelson Rockefeller wants for an autograph of Mark Twain?
   No--includes only prices obtained at auction
C. Classified advertisements for music scores and books?
   No--auction sales records only
D. Which auction house sold a 1696 Dutch translation of Don Quixote?
   Yes--states dealer who made sale

Cumulative Book Index. 1898-

SCOPE: Books in the English language published in all countries. Excludes government documents, maps, music, pamphlets, paperbacks.

ARRANGEMENT: Author, subject and title index in one alphabet. Main entry includes author's name, pseudonym, dates, title, illustrator, translator, binding (if other than cloth), price, date of publication, publisher, edition, series, paging, LC card number. Also directory of publishers and distributors.

FREQUENCY: Monthly with bound semi-annual and two-year cumulations. Service basis.

CBI can be used for finding which items:
A. A list of books of ghost stories for children in English?
   Yes--has subject approach
B. Whether any of Yukio Mishima's works have been translated into English?
   Yes--includes English translations
C. A French history of the U.S. published in 1968?
   No--only includes English language publications
D. What Kate Norway's real name is?
   Yes--information is given about pseudonyms
E. A new paperback edition of Vanity Fair?
   No--does not list paperbacks

2

Books in Print. 1948-

SCOPE: 1 v. for Authors Index; 1 v. for Titles Index. Lists books from trade order lists of American publishers. Gives price, publisher, distributor, series, edition, whether illustrated and binding. Includes foreign language material. Directory of publishers.

FREQUENCY: Annual

In BIP one could find:

A. Which books by Anthony Burgess are now out of print?
   No--only in-print books are listed
B. Whether there is a Russian text available of Chekhov's play Uncle Vanya?
   Yes--foreign language publications are included in listings
C. A list of books put out by the National Education Association about audiovisual instruction?
   Yes--author listing includes corporate authors
D. Who wrote Crossroads of Liberalism and how much a copy costs?
   Yes--title index indicates author and price is given
E. Which of Carl Jung's works are available in paperback editions?
   Yes--listings include paperbacks

Subject Guide to Books in Print. 1957-

SCOPE: Non-fiction, omits Bibles, poetry, drama, and fiction except for collections, criticism, fiction about important events and persons. Gives authors, titles, publishers, date of publication, prices, and grade level (for juveniles). Directory of publishers.

ARRANGEMENT: Library of Congress subject headings. Cross references.

Which questions could be answered using this source:

A. Which books by Sheldon Glueck are still in print?
   No--has no author approach
B. Are there any books about Adolf Eichmann, the former Nazi?
   Yes--has entries for persons as subjects
C. Who published a children's book by Barbara Cary about Abraham Lincoln?
   Yes--listings of juvenile literature are found under names of persons as subjects. Information includes name of publisher.
D. What is the best travel guide to Spain?
   No--has no annotations, only listings

Paperbound Books in Print. 1955-

SCOPE: Author, title, and subject indexes. Publishers and prices with marks to indicate titles which appear only in paper. Annotated monthly previews of forthcoming books. Publishers directory.

FREQUENCY: Monthly with cumulations three times a year.

Which of the following could be found in PBIP:

A. The price of a paperback titled French Made Simple?
   Yes--has title approach and gives prices

B. Whether any of B.F. Skinner's books are available in paper bindings?
   Yes--has author approach
C. An annotated list of all the paperback editions of D.H. Lawrence's works?
   No--only forthcoming new paperbacks are reviewed
D. Are there any paperback books on training a beagle and who publishes them?
   Yes--has subject approach and states name of publisher.

Guide to Microforms in Print. 1961-

SCOPE: List of publications available on microform from U.S. publishers. Includes price, publisher, date of original publication, and method of microreproduction. No dissertations listed.

ARRANGEMENT: Alphabetical. Books entered by author; journals and sets by title; newspapers by state.

Guide to Microforms in Print would answer which questions:

A. How much would it cost to order a microform copy of Alfred Aly's Journal?
   Yes--gives prices
B. Are copies of Nuclear Science Abstracts available on microcards?
   Yes--indicates method of microreproduction
C. Where can one order a microfilm copy of a dissertation on Thomas Wolfe?
   No--does not list dissertations
D. Which French periodicals are available on microfilm from A.C.R.P.P., a French publisher of microforms?
   No--covers only U.S. publishers
E. From which publisher can one order a microform copy of Charles Summer's book White Slavery in the Barbary States?
   Yes--indicates name of publisher

Subject Guide to Microforms in Print.

SCOPE: Includes author, title, date, and price. U.S. publishers only.
1.10/X/2
1.10 = $1.10
X = Publisher
2 - Microform designation, as below
/1 Microfilm
/2 Microcards
/3 Readex microprint cards
/4 Microlex cards
/5 3" x 5" micro-opaque cards
/6 Magazine mounted 16mm negative
/7, /8, /9 Microfiche, various sizes

ARRANGEMENT: Subject. Newspapers entered by state-city-name.

For which items would one use Subject Guide to Microforms in Print:

A. Which scholarly psychological journals are available in microform?
   Yes--has subject approach

B. Are issues of the Korean newspaper Republic, published in the U.S., on microfilm?
   Yes--includes foreign newspapers put on microfilm by U.S. publishers

C. Where can I order W.S. Bryan's book History of the Pioneer Families of Missouri?
   No--has no author or title approach

National Register of Microfilm Masters. Sept. 1965-

SCOPE: Locations of negatives of microcopies of books, periodicals, and foreign doctoral dissertations, in institutions in U.S. and abroad. Supplemented by Library of Congress's Newspapers on Microfilm. Indicates author, title, date of publication, location and form of master (as film, fiche, etc.). Directory of libraries and sources.

FREQUENCY: Annual

ARRANGEMENT: Pt. 1. LC card number, monographs.
Pt. 2. Alphabetical by main entry, monographs without LC numbers.
Pt. 3. Serials, alphabetical by main entry.

Which items can be located in National Register of Microfilm Masters:

A. From which institution can a microfilmed copy of The Book of Morman be obtained?
   Yes--gives locations for works preserved on microform masters

B. Is Putnam's Magazine available in microform?
   Yes--covers periodicals

C. Where can one order a print of a Harvard doctoral dissertation in economics?
   No--covers only foreign doctoral dissertations

D. How much will it cost to order a print of Phelps' Hymns and Choirs?
   No--does not give prices.

BIBLIOGRAPHY--National & Trade Bibliographies--Review questions

Where would you find:

1. How much does Gone With the Wind cost in paperback?
   PBIP
2. Who publishes current microform copies of the Los Angeles Times?
   Guide to Microforms in Print
3. Who publishes Fraser's Canadian Trade Directory in Canada?
   CBI
4. Who wrote Game of Danger and how much does it cost?
   BIP, CBI

Dissertation Abstracts. 1938-

SCOPE: Monthly. Approximately 98 percent of U.S. colleges and universities granting doctoral degrees cooperate. Each entry identified by academic field, title, order number, author, institution, date, supervisor, number of pages in the dissertation and price for copies. Each entry has 600-word abstract written by the author.

Subject and author indexes each issue. Cumulative index yearly.

ARRANGEMENT: Two sections, one in humanities and social sciences, the second in physical sciences and engineering.

Would the following be found in Dissertation Abstracts:

A. A thesis on the Brontës?
   Yes--located through subject index
B. 1925's listing of psychology dissertations?
   No--too early, coverage begins 1938
C. Who directed Dennis Roseman's 1968 thesis on Differentiable Embeddings?
   Yes--abstracts on 1968 theses are in 1969 monthly issues
D. The name of the university where Martin R. Levin earned his Ph.D. in 1967 and what his thesis was about?
   Yes--located through author index

Standard Catalog for Public Libraries.

SCOPE: Non-fiction titles chosen by a board of consultants nominated by the Public Library Association and the Association of College and Research Libraries of the ALA. Needs of smaller libraries given special attention. Supplements.

ARRANGEMENT:
I. Classified list arranged by Dewey Decimal Classification. Books entered under authors with publishers, dates, pagination, prices, and LC card order number. Annotations with excerpts from reviews. Double star means most highly recommended; single star means especially recommended.
II. Author, title, subject, and analytical index in one alphabet.
III. Directory of publishers and distributors.

The Standard Catalog for Public Libraries might have which of these items:

A. Travel guides to foreign countries?
   Yes--has subject index and Dewey number approach to works of description and travel by country
B. Whether Library Journal gave Heyerdahl's Aku-Aku a favorable review?
   Yes--cites excerpts form reviews
C. A brief summary of Robert Bolt's play A Man for all Seasons?
   Yes--includes drama
D. A list of inexpensive atlases and maps useful in a public library?
   Yes--includes maps and atlases and gives prices

Senior High School Library Catalog. 9th ed. 1967

SCOPE: Titles selected by board of consultants nominated by the American Association of School Librarians. Also Junior High School Library Catalog. Catholic Supplement covers books selected by a committee of the Catholic Library Association. Annual supplements.

ARRANGEMENTS:
I. Classified catalog with bibliographic information plus descriptive and critical annotations
II. Author, title and subject index with analytical entries
III. Directory of publishers and distributors

Which of the following could be found in the Senior and/or Junior High School Library Catalogs:

A. The address of a publisher for a book listed in the catalog?
Yes--has directory of publishers

B. The Dewey Decimal number assigned to works of fiction?
No--fiction is listed separately in alphabetical author arrangement

C. A poorly written biography of Franklin Roosevelt which schools are urged not to purchase?
No--only recommended titles are included

D. Whether a book has illustrations?
Yes--indicates illustrative material

Children's Catalog.

SCOPE: Fiction and non-fiction for the elementary grades chosen by consultants nominated by the American Association of School Librarians and the Children's Division of ALA. Smaller libraries given special attention. Annual supplements.

ARRANGEMENT:
I. Classified catalog. Complete bibliographical information. Evaluative annotations and plots. Star means especially recommended; double star means highly recommended.
II. Alphabetical index--author, title, subject and analytical approach.
III. Directory of publishers and distributors

Which of the following could be found in the Children's Catalog:

A. A very good book about ballet for 5th graders?
Yes--evaluates books and indicates grade level suitability

B. In which anthologies a fairy tale titled The Jolly Tailor Who Became King can be located?
Yes--alphabetical index has analytical entries by title for works found in collections

C. A plot summary of Evaline Ness' Exactly Alike?
Yes--has plot summaries for fiction

D. A work about the Inca Indians recommended for 10th graders?
No--covers only elementary grades.

Fiction Catalog.

SCOPE: Guide to adult fiction in English chosen by Public Library Association and Adult Services Division of ALA. Small libraries kept in mind. Annual supplements.

ARRANGEMENT: I. Author with full bibliographical information plus descriptive and critical annotations. Star means especially recommended and most highly recommended are double-starred. "Y" means suitable for young adults. Large type editions also noted.
II. Title and subject index. Large type editions listed under that heading.
III. Directory of publishers and distributors.

Which items are found in Fiction Catalog:

A. A list of psychological novels?
Yes--works listed by subject

B. Which stories are included in The Complete Stories of Herman Melville?
Yes--lists contents of collected works

C. Who is the publisher of J.R.R. Tolkien's Lord of the Rings trilogy?
Yes--publisher's name is given

D. Would Victoria Holt's novel The Legend of the Seventh Virgin be suitable for teenagers?
Yes--indicates suitability for young adults

Books for College Libraries. 1967

SCOPE: Only titles published before 1964. Choice, a reviewing periodical, serves as a supplement. Includes out-of-print works. Lists author, title, edition, imprint, pagination, and LC card no. Includes translations and original language editions of literature.

ARRANGEMENT: LC classification. Author and subject index.

Which questions can be answered by Books for College Libraries:

A. How much does Jean Paul Sartre's Essays in Aesthetics cost?
No--does not give prices

B. What are some good college level books in the field of plant physiology?
Yes--has subject approach through index and classification scheme.

C. What is the imprint for College and Research Libraries, a library journal?
No--lists only book titles, no periodicals

D. Who published Bertolt Brecht's Mutter Courage und itre Kinder?
Yes--has foreign language works and gives names of publishers

E. Are there any books published since 1965 about the modern rman novel?
No--coverage ends in 1964

Junior College Library Collection. 1968.

SCOPE: 19,000 books for junior and community colleges. Eighty-eight junior colleges participated in selection. Full bibliographical information, including subject headings.

ARRANGEMENT: LC classification, with author index.

The Junior College Library Collection would have which items:

A. A list of cookbooks?
   Yes--has subject approach
B. What books suitable for junior college level has James Bossard written about marriage?
   Yes--author index lists all of author's works included in list
C. When was Ken Kesey's novel One Flew Over the Cuckoo's Nest published?
   Yes--gives date of publication
D. A bibliography of books about European architecture suited for graduate research?
   No--only junior college level titles are included

The Reader's Adviser. 11th ed. 1968.

SCOPE: In-print lists of best books, omits juveniles. Especially good for lists of reference works, Bibles, philosophy, and literature. Lists of works by and about world's leading authors. Biography, evaluative annotations, and quotes from critics. Includes paperbacks. Full order information.

ARRANGEMENT: Subject. Author entries in each chapter are chronological. Author index. Title and subject index.

Which of the following are to be found in The Reader's Adviser:

A. A brief biographical sketch of Dante Gabriel Rossetti, the Italian poet?
   Yes--has biographical information
B. How much does John Berryman's 77 Dream Songs cost and which publisher puts it out?
   Yes--information includes cost and publisher's name
C. Which editions of Shakespeare's works are available in paperback?
   Yes--lists editions by publisher and by number of volumes; indicates paperbound editions
D. An annotated, evaluative list of books on word usage?
   Yes--gives evaluations and has good coverage of reference works

BIBLIOGRAPHY--Best Books--Review questions

Where would you find:

1. Whether John Kenneth Galbraith's Economic Development in Perspective is felt to be "highly recommended" for public libraries?
   Standard Catalog for Public Libraries
2. A 1961-65 listing of adult fiction about fantasies?
   Fiction Catalog
3. The publisher of three college-level books about Ambrose Bierce published prior to 1964?
   Books for College Libraries
4. Full order information and quotes from critics on Waiting for Godot by Samuel Beckett?
   Reader's Adviser
5. Biographies about blacks suitable for teenagers?
   Senior High School Library Catalog
6. Whether Veronica's Smile by Roger Duvoisin or A Dog so Small by Philippa Pearce would be better for a six year old?

Children's Catalog

7. Two books on genetics that are appropriate for junior college-level students?
Junior College Library Collection

Halkett, Samuel and Laing, John. Dictionary of Anonymous and Pseudonymous English Literature. 1926-62. 9 volumes.

SCOPE: Comprehensive listings, including works translated into English. Coverage to 1950. Gives title, size, pagination, imprint, author's name, authority cited.

ARRANGEMENT: Volumes 1-7. Coverage to 1900, main alphabet; two supplements of corrections and additions to 1930. Author index. Initials, pseudonyms index.

Volume 8. 1900-1950. Author index. Initials, pseudonyms index.

Volume 9. Additions and corrections before 1900; additions, 1900-1950. Author index. Initials, pseudonyms index.

In each case below, which of the following volumes of Halkett and Laing need one check:
(1) Appropriate vol. 1-7
(2) Appropriate vol. 1-7 and vol. 9
(3) Appropriate vol. 8 and 9
(4) Appropriate vol. 1-7, vol. 8 and vol. 9

A. Author of A Catalog of American Antique Furniture, published anonymously in Strafford, Pa., 1936.
3 - vols. 8 and 9 have works after 1930

B. Real identity of Russell Gray, author of Up and Down the World, a novel, published under the above pseudonym in London, 1869.
2 - vols. 1-7, 9 have words before 1900

C. Author of Proof of Rome's Political Meddling in America, published anonymously in Washington, 1927.
4 - works after 1900 and before 1930 listed in supplements and vols. 8 and 9

A Catalog of Books Represented by Library of Congress Printed Cards Issued to July 31, 1942.

SCOPE: Books, periodicals, serials. Excludes titles in oriental, Arabic, and Indic alphabets. Includes all cards printed since 1898. Books printed before 1898 if cards were printed after 1898.

ARRANGEMENT: Main entry with cross references, but no added entries. Full bibliographic information, including author's dates and subject heading.

SPECIAL FEATURES: Supplement. 1942-47 (Includes printed music) 26,000 anonymous and pseudonym works listed by title, with original author entry crossed out.

The LC Catalog and Supplement might have which items:

A. A list of books about aviation?
   No--has no subject approach
B. A listing of an 1872 edition of Thomas Hardy's book Under the Greenwood Tree?
   Yes--includes books printed before 1898 if cards were printed between 1898 and 1947
C. A book in Hebrew written in 1948?
   No--coverage up to 1947 only
D. The subject classifications assigned to an entry?
   Yes--LC subject headings are given

U.S. Library of Congress. The Library of Congress Author Catalog. A cumulative list of works represented by Library of Congress cards, 1948-52.

SCOPE: v. 1-23, Authors; v. 24, Films. Author's dates included only when two have same name. Brief annotations for films.

ARRANGEMENT: Added entries plus main entries for books, pamphlets, maps, music scores, periodicals and serials, films.

In the LC Author Catalog one could find:

A. Birth and/or death dates for all authors?
   No--dates given only for duplicate names
B. A 1912 German atlas listed under author entry?
   Yes--includes maps
C. Books for which LC cards are available about Chinese history?
   No--has no subject approach
D. What the 1952 movie Toughest Man in Arizona is all about?
   Yes--has brief summaries of film contents

U.S. Library of Congrss. The National Union Catalog 1952-1955 Imprints. An author list representing Library of Congress printed cards and titles reported by other American libraries.

U.S. Library of Congress. The National Union Catalog; a cumulative author list representing Library of Congress printed cards and titles reported by other American libraries, 1953-

SCOPE: Expanded to include holdings of many libraries in addition to LC. Includes books, pamphlets, maps, atlases, and microreproductions held by many libraries, and serials cataloged by LC. Gives author, title, place, publisher, date, collation, series, ed., notes, tracings, LC no., and LC card no. Quinquennial, annual, quarterly, and monthly cumulations. In 1958 cards in oriental, Arabic, and Indic alphabets added for all reported works.

SPECIAL FEATURES: Supplemented by National Union Catalog. Register of Additional Locations, 1965- which lists more locations reported after annual cumulations.

The NUC would have which items:

A. A Caedmon recording of Robert Frost, American poet, reading his poems?
No--phonorecords listed separately

B. A 1948 edition of Robert Browning's poems?
No--these vols. have only works published between 1952-55

C. A book published in 1968 in Arabic characters?
Yes--non-Latin alphabets added in 1958

U.S. Library of Congress. The National Union Catalog pre-1956 Imprints. A cumulative author list representing Library of Congress printed cards and titles reported by other American libraries. 1968- (in progress)

SCOPE: Imprints of 1955 and earlier. 610 vols. Includes books, pamphlets, maps, atlases, music, periodicals, serials. Few works in non-Latin alphabets. Excludes phonorecords, films, raised type books for the blind. Locations in U.S. and Canadian libraries indicated.

ARRANGEMENT: Main entry, with cross references and selected added entries. Photocopies and facsimile printings included in entry listings.

Which of the following could be found in NUC pre-1956 Imprints:

A. Who published Samuel Abelow's History of Brooklyn Jewry?
Yes--full imprint is given

B. Which library has a copy of an abstract by Alvin Aster titled "Looking into the Future Through Electrical Eyes" published in National Education Association Proceedings?
Yes--has locations

C. Where can one locate a filmstrip on sex education suitable for fifth graders?
No--excludes films and has no subject approach

D. What has Edith Abbott written? She died in 1957.
Yes -- under author are found names of works

E. Which libraries have copies of Iberia by James Michener?
No--includes only pre-1956 books

U.S. Library of Congress. Library of Congress Catalog. A cumulative list of works represented by Library of Congress printed cards. Books: Subjects: 1950-

SCOPE: Books, pamphlets, serials published after 1945 and cataloged by LC and other American libraries in cooperative cataloging program. Excludes belles-lettres. Maps and atlases 1950-52 and after 1955. After 1952 motion pictures and music scores excluded. Quinquennial, annual, and quarterly cumulations.

ARRANGEMENTS: LC subject headings.

In the LC Catalog. Books: Subjects: one could find which of the following:

A. Novels by Ernest Hemingway available on LC cards?
   No--excludes fiction
B. The libretto of Camelot, a musical comedy copyrighted in 1961?
   Yes--has librettos but no scores after 1952
C. Listing of children's books about medicine?
   Yes--juvenile literature is listed by subject
D. The name of a book written by Franz Roh in 1948?
   No--has no author approach

U.S. Library of Congress. Library of Congress Catalog--Motion Pictures and Filmstrips, 1953-

SCOPE: List of works of educational value represented by LC printed cards. Omits microfilms. Physical descriptions, credits, and subjects noted. Quinquennial, annual, and quarterly cumulations.

ARRANGEMENT: Title with added entries. Subject index.

Which questions would be answered by LC Catalog. Motion Pictures and Filmstrips:

A. Is The Five Chinese Brothers available on a filmstrip?
   Yes--has title listings and indicates form
B. What is the movie The Heroes about?
   Yes--has summaries of plots or content
C. Are there any movies explaining the germination of suds?
   Yes--has subject approach
D. How many minutes does the movie of the comedy You Can't Take it With You run?
   No--includes only films of educational value

U.S. Library of Congress. Library of Congress Catalog--Music and Phonorecords, 1953-

SCOPE: Works with LC printed cards. Semi-annual, annual, and quinquennial cumulations.

ARRANGEMENT: Composers with title entries for anthologies. Added entries. Subject index.

LC Music and Phonorecords includes which items:

A. Recordings of Norwegian folk songs?
   Yes--found through subject index
B. A listing of musical compositions by Eugene Goosens?
   Yes--works arranged under composer's name
C. Excerpts from West Side Story arranged for piano and voice?
   Yes--includes score arrangements
D. A textbook about the history of medieval music?
   No--has only scores and recordings

British Museum. Dept. of Printed Books. General Catalogue of Printed Books. 1959- 263 v. Ten-year supplement, 1956-1965. 50 v.

SCOPE: List of printed books in the British Museum with analytics. Excellent foreign language coverage. Main set lists works cataloged between 1881-1955.

ARRANGEMENT: Mainly author. Biography under biographee. Some headings like "Bible" or "Liturgies" and place names.

SPECIAL FEATURES: Supplemented by annual list of additions since 1963. Also by Subject Index of the Modern Works Added to the Library, 1881-. Also by Peddie, R.A., Subject Index of Books Published before 1880.

Which questions would the British Museum General Catalogue answer:

A. Who translated an 1817 edition of the complete Bible into Chinese?
   Yes--has entries for Bibles in numerous languages with information about translators.
B. Which libraries in Great Britain have copies of Norman Cave's book The Iris published in 1950?
   No--only lists works in the British Museum
C. Who wrote the best critical study of Cervantes' Don Quixote?
   No--has no annotations or evaluations
D. How many copies of William Huntington's book A Rule and a Riddle are owned by the British Museum?
   Yes--has separate listing for each copy and/or edition of titles
E. Which histories of American literature can be found in the British Museum?
   No--General Catalog has no subject approach for most topics. Use Subject Index to find entries by topic.

BIBLIOGRAPHY--Library Catalogs--Review questions

Where would you find:

1. Whether LC cataloged any books about the Hittite language from July-Sept 1967?
   LC Books; Subjects 1950-
2. During which years La Revue Blanche, a Parisian periodical, was published:
   Br. Mus. General Catalog
3. The LC number, translator, and libraries holding a copy of Natalia Ginzburg's A Light for Fools, 1956?
   NUC 1953-57
4. A list of Christmas stories available on filmstrips?
   LC--Motion Pictures & Filmstrips
5. Whether LC cataloges the Beatles albums?
   LC--Music & Phonorecords
6. If any American libraries, other than LC, have copies of Claude Amiette's Peine Perdue, 1955?
   NUC 1952-55

BIBLIOGRAPHY--General review

Where would you find:

1. What books suitable for a junior college library Henry Steele Commager has written within the last five years?
   Junior College Library Collection
2. A French text of Huis Clos that is in-print?
   BIP
3. From which source one can order copies printed from a master microfilm of the New Jersey Journal of Pharmacy?
   National Register of Microfilm Masters
4. Whether there are any paperback books about computer-assisted instruction for sale?
   PBIP
5. The name of one of the French to English translators of a very recent Georges Siminon novel published outside the U.S.?
   CBI
6. What is the value of an 1864 edition of James Doyle's A Chronicle of England?
   American Book Prices Current
7. The author of the anonymous play The Macaroni which was first presented in 1773 in York, England?
   Halkett and Laing. Dictionary of Anonymous and Pseudonymous English Literature.
8. The summary of a 1968 doctoral thesis on the Han dynasty of China?
   Dissertation Abstracts
9. A list of separately collated bibliographies on children's literature with an international scope?
   Besterman. World Bibliography of Bibliographies
10. A 1967 bibliography on Victorian jewelry?
    Bibliographic Index
11. How much it costs to order an in-print microform copy of the American Whig Review 1845-1852?
    Guide to Microforms in Print
12. Which record company has a 1968 recording of Puccini's La Boheme?
    LC--Music & Phonorecords
13. The LC number for a Hebrew literature bibliography published in 1957?
    LC Books: Subjects 1950-
14. Some recent films on drinking and traffic accidents?
    LC--Motion Pictures & Filmstrips; Subject Guide to Microforms in Print
15. A list of good books about reptiles for high school students?
    Senior High School Library Catalog
16. A book about the Chinese language that is suitable for a grade school child?
    Children's Catalog

DICTIONARIES

Webster's Third New International Dictionary of the English Language. 1961.

SCOPE: 450,000 entries including slang, synonyms (no antonyms), foreign phrases. Quotations from famous people, including contemporaries, as illustrations of usage. 3,000 illustrations. Etymologies. Pronunciation in cultivated conversational usage. Tables and sections of special information. Inflectional forms. Status labels. Capitalization indicated. Historical order of definitions but undated. Descriptive rather than prescriptive.

Would the following be found in this work:

A. The usage of the word "groovy"?
   Yes--includes current slang terms
B. A dated quotation illustrating the earliest meaning and usage of the word "gaunt"?
   No--has only undated definitions and quotations
C. Gazetteer information?
   No--has no gazetteer information

Murray, Sir J.A.H. Oxford English Dictionary: Being a corrected reissue, with an introduction, supplement and bibliography of A New English Dictionary on Historical Principles. 12 volumes and supplements. 1933.

SCOPE: Pronunciation, definitions, and historical treatment of approximately 500,000 words and idioms. Nearly 2,000,000 dated quotations with exact references to sources to illustrate usage of words from 1150 on. Bibliography of references quoted. Best etymological dictionary in the English language.

ARRANGEMENT: Alphabetical, with chronological listing of quotations under each meaning.

Would the following be found in the Oxford English Dictionary:

A. The main forms of the verb "to have" in Old English?
   Yes--gives detailed usages of words in their various forms at different periods
B. Modern usage of Anglo-Saxon words in the magazine Ramparts?
   No--too recent, coverage ends 1933
C. The source of an 1889 quotation showing Rider Haggard's use of the word "scrawl"?
   Yes--has bibliography of sources referred to

The Random House Dictionary of the English Language.

SCOPE: 260,000 entries, biography, geography. 2,000 illustrations. Synonyms and antonyms. Examples of usage with labels. Etymologies. Simple pronunciation scheme. Common meanings first. French, Spanish, Italian and German dictionaries. Atlas-gazatteer. 64 pages of maps, style manual, list of reference works by subject, chronology of world history, signs and symbols by subject, list of colleges and universities.

Would the following be found in this work:

A. An antonym for the word "feeling"?
   Yes--antonyms and synonyms often given
B. Identification of Warren de la Rue?
   Yes--has biographical entries
C. A translation of "moody" into Danish?
   No--only has French, Spanish, Italian and German dictionaries
D. A chronological presentation of meanings and usages of the word "school"?
   No--current, common usages are given first

DICTIONARIES--Review questions

Where would you look for:

1. The source of a quotation written by Shakespeare?
   Murray. Oxford English Dictionary
2. A translation of the word "war" into French?
   Random House Dictionary of the English Language
3. All the current pronunciations of the word "roof"?
   Webster's Third New International Dictionary

Funk & Wagnall's Standard College Dictionary. 1968.

SCOPE: Main alphabet has information on persons, places, etc. Etymology. Usage illustrations and labels. Idioms. Pronunciation. Synonyms, antonyms. Maps. Illustrations. Foreign terms. Many Canadian terms. Clear, simple presentation.

ARRANGEMENT: Current meaning first.

Which questions could one answer with Funk & Wagnall's Standard College Dictionary:

A. Where is Ryswich?
   Yes--includes place names
B. What does a lyre look like?
   Yes--has illustrations
C. What plays has the Spanish dramatist Federico Garcia Lorca written?
   No--has only brief identification of persons
D. What does "to make the scene" mean?
   Yes--includes explanations of slang phrases

Webster's Seventh New Collegiate Dictionary.

AUTHORITY: Based on Webster's Third New International Dictionary.

SCOPE: 130,000 entries, 4,700 usage labels, synonym paragraphs (but no antonyms), usage examples which show how educated people use the words, simplified pronunciation symbols keyed at bottom of page. Indicates capital letters. No four-letter obscenities, little slang. Chronological order of definitions with modern one last.

SPECIAL FEATURES: Rules for spelling and punctuation, dictionary of rhymes, list of contemporary given names. 10,000 gazetteer, 5,000 biography, forms of address, colleges and universities of the U.S.

and Canada, abbreviations and symbols, index to special tables of information.

Would the following be found in this work:
A. Any slang term one needed?
No--little slang included
B. A pronunciation key on every page?
Yes--pronunciation key at bottom of page
C. The most modern definition appearing first?
No--modern definition is last
D. Names of important cities, with pronunciation, location and population?
Yes--has pronouncing gazetteer with locations and population figures

The American College Dictionary. 1966.

SCOPE: 132,000 entries, including 60,000 technical and scientific definitions, 1,500 illustrations, maps, most common meaning first, etymologies, antonyms and synonyms, plurals, drawings, present participles, foreign words, place names, biographies, popular expressions, abbreviation codes and pronunciation guides on facing pages.

Would the following be found in this dictionary:
A. Which meaning of the noun "dart" is the most common?
Yes--gives most common meanings first
B. A map showing the location of the Lombardy region in Italy?
Yes--has spot maps
C. The meaning of the Latin phrase nolens volens?
Yes--has foreign phrases

Webster's New World Dictionary of the American Language. College ed. 1962.

SCOPE: 142,000 entries, abbreviations, foreign words, slang expressions, idioms, names of persons and places in main text, usage labels, easy pronunciation, 1,200 drawings illustrating 3,100 terms, 180 spot maps. General American pronunciation with regional or foreign variations noted. Synonyms and antonyms, variant spellings, irregular plurals, etymology, field labels (e.g., "wrestling"), capitalization indicated, part-of-speech labels, foreign phrases indicated by double dagger, derived forms, examples of the word in context, participal parts of the verb, suffixes, prefixes, comparatives and superlatives. Chronological order of definitions.

Would the following be found in this work:
A. The origin of the word "ken"?
Yes--gives etymologies
B. The British pronunciation of "schedule"?
Yes--often notes foreign pronunciations
C. A list of common compounds formed with the prefix "un"?
Yes--has lists of prefixed words
D. The meaning of "hair of the dog"?
Yes--includes colloquialisms and slang

Craigie, Sir W.A. A Dictionary of American English on Historical Principles. 1938-44. 4 volumes.

SCOPE: Distinguishes American speech. Words and phrases of American origin and/or usage. Also words about American history. Variant forms listed. End of 19th century terminal date. Shows relationship to British usage. Dates. Quotations with reference to source. Bibliography of sources.

ARRANGEMENT: Chronological listing of quotations under each word.

Would the following be found in this work:

A. Early origins of the term "apple-fritter"?
   Yes--has definitions with dated quotations showing usage
B. The cause of baldness?
   No--only meanings and usages given
C. The slang expression "cool it"?
   No--too recent, terminal date is end of 19th century
D. The earliest written record of the use of the American word "chaparral"?
   Yes--does have dated quotations
E. Whether "dobie" and "abode" have different meanings?
   Yes--variant forms given. Words of foreign origin included if widely used by Americans.

Mathews, Mitford M. A Dictionary of Americanisms on Historical Principles. 2 volumes. 1957.

SCOPE: 50,000 entries. Contains words which came into English first in U.S., including foreign terms, words from England which have acquired new meanings in the U.S., terms made by combining older terms, phrases first used in the U.S., American nicknames, slang expressions. Dated quotations. Pronunciations only for words originating or becoming English in U.S., etymologies, pictures. Bibliography of sources.

Would the following be found in this work:

A. Synonyms for the word "dull"?
   No--only gives definitions with quotations showing usage
B. Expressions made with the word "boot" and where or when they originated in the U.S.?
   Yes--has dated quotations indicating when or where term was used
C. A picture of a "lowboy"?
   Yes--illustrations included to clarify meanings
D. Information about the word "blarney"?
   No--is not of American origin

Bender, James F. NBC Handbook of Pronunciation. 3rd ed. 1964.

SCOPE: Hard-to-pronounce words. Places, people, words in the news, everyday words, etc. Pronunciations of foreign words approximated. Reflects American usage.

ARRANGEMENT: Alphabetical with each word both respelled and put into the International Phonetic Alphabet.

Would the following be found in this work:
A. Short biographies of contemporary authors?
No--only gives pronunciations
B. Pronunciations of headline terms?
Yes--words in the news are included
C. Only authentic pronunciations of foreign words?
No--only approximations of foreign pronunciations are given

Wentworth, Harold. Dictionary of American Slang. Supplement by Stuart Berg Flexner. 1967.

SCOPE: Colloguialisms, cant, jargon with definitions, etymologies, and illustrations of usage with date and source. No pronunciation. Selected bibliography of reference sources.

SPECIAL FEATURES: Word lists of affixes, shortened forms, rhyming slang, pig latin, nicknames, taboo words, etc.

Would the following be found in this work:
A. The meaning of "sugar daddy"?
Yes--is an American slang term
B. The definition of "bring home the bacon"?
Yes--includes slang phrases
C. The meaning of "ogfray"?
Yes--has pig latin terms
D. The meaning of "bobby"?
No--is a British term

Webster's Dictionary of Synonyms: A dictionary of discriminated synonyms, with antonyms and analogous and contrasted words. 1942.

SCOPE: Discriminates among synonyms. Distinguishes by explanations and quotations. Antonyms and analogous and contrasted words. List of authors quoted with dates and identification.

Would the following be found in this work:
A. Comparison of the terms "intend" and "mean"?
Yes--compares words with similar meanings
B. Location of the word meaning "bring into agreement"?
No--no approach
C. An antonym for the word "meager"?
Yes--includes antonyms
D. The difference in meaning between "connote" and "denote"?
Yes--discriminates among words and explains various shades of meaning

Lewis, Norman. The New Roget's Thesaurus of the English Language in Dictionary Form. Revised ed. 1961.

SCOPE: Synonyms and some antonyms. Words and phrases. No obsolete terms. Usage labels.

ARRANGEMENT: Alphabetical, with cross references.

Would the following be found in this work:
A. Clear definitions in standard English?

No--has no definitions, just synonymous terms

B. A subject listing of entries?
No--has no index or subject groupings as original Roget does

C. Quotations from contemporary authors?
No--no quotations included

DICTIONARIES--Review questions

Where would you find:

1. A list of synonyms for the word "happy"?
Lewis. The New Roget's Thesaurus of the English Language in Dictionary Form; Webster's Dictionary of Synonyms

2. What the slang expression "armored cow" means?
Wentworth and Flexner. Dictionary of American Slang

3. The origins of the expression "cracker barrel"?
Craigie. A Dictionary of American English on Historical Principles;
Mathews. A Dictionary of Americanisms on Historical Principles

4. The correct pronunciation of Vietnam?
Bender. NBC Handbook of Pronunciation

5. Antonyms and analogous words for the word "surprised"?
Webster's Dictionary of Synonyms

Fowler, H.W. Dictionary of Modern English Usage. 1965.

SCOPE: Use of disputable words. Identifies cliches, superfluous words, illiteracies, genteelisms, etc. Grammar, punctuation, diction, composition, spelling, and good usage. Old fashioned. Sample sentences to illustrate good and bad usage. Pronunciation of mispronounced words.

ARRANGEMENT: Alphabetical, with a classified guide to the articles included.

Would the following be found in this work:

A. A list of hackneyed phrases?
Yes--gives examples of usage, including trite phrases

B. Whether "fiord" or "fjord" is the correct English spelling?
Yes--indicates correct form for disputed spellings

C. How to pronounce "recondite"?
Yes--gives correct pronunciations for mispronounced words

D. Discussion and examples of the uses and abuses of inversion in writing?
Yes--includes article on composition with examples of good and bad usage

Evans, Bergen, and Evans, Cornelia. A Dictionary of Contemporary American Usage. 1957.

SCOPE: Usage, grammar, cliches, idioms, phrases. Often states differences between British and American usages, and past and present usages. Permissive. Descriptive, not prescriptive.

ARRANGEMENT: Alphabetical.

Would the following be found in this work:

A. Meaning of the expression "to shed light on the subject"?
Yes--includes idioms

B. Difference between American and English usage of the word "trunk"?
Yes--often explains differences between American and British usages
C. Comparison of meanings of "rare" and "scarce"?
Yes--makes discriminations among meanings of similar words

Follett, Wilson. Modern American Usage; A guide. 1966.

SCOPE: Traditional and proper usage. Discusses pronunciation, diction, punctuation, style, grammar, spelling, etc. Indicates jargon, journalese, pedantry, idioms with examples of usage.

Would the following be found in this work:
A. Examples of jargon sentences using the phrase "on the basis of"?
Yes--has examples of wrong usage
B. The etymology of the word "sequence"?
No--does not give etymologies
C. Proper usage of "shall" and "will"?
Yes--has long article about using them correctly

DeSola, Ralph. Abbreviations Dictionary: Abbreviations, acronyms, contractions, signs and symbols defined, including civil and military time systems, Greek alphabet, international civil aircraft markings, numbered abbreviations, proofreader's marks, punctuation and diacritical marks, radio alphabet, Roman numerals, ship's bell time signals, signs and symbols. 1964.

ARRANGEMENT: Alphabetical and numerical order.

Would the following be found in Abbreviations Dictionary:
A. Roman numerals for 3,000?
Yes--has a list of Roman numerals
B. Definition of the word "percolate"?
No--no definitions
C. The military time equivalent of 12:15 a.m.?
Yes--compares civil and military time systems

Gale Research Co. Acronyms and Initialisms Dictionary. 1965.

SCOPE: A guide to alphabetic designations, contractions, acronyms, initialisms, and similar condensed appellations covering: aerospace, associations, biochemistry, business and trade, domestic and international affairs, education, electronics, genetics, government, labor, medicine, military, pharmacy, physiology, politics, religion, science, societies, sports, technical drawings and specifications, transportation, and other fields. Includes foreign terms.

ARRANGEMENT: Alphabetical, according to the acronym or initials.

Would the following be found in this work:
A. A list of government agencies in the United Kingdom?
No--no approach, only gives full titles for initials and acronyms
B. What the initials MOBOT stand for?
Yes--gives full names for alphabetic designations
C. The meanings of medical initialisms?
Yes--includes medical alphabetic designations

Ruffner, Frederick G. Code Names Dictionary. 1963.

SCOPE: Code words and nicknames. Strong on military and scientific expressions. Includes pronounceable acronyms. Brief identification, with dates of use and nation using term.

ARRANGEMENT: Alphabetical by code name.

Which questions would Code Names Dictionary answer:
A. What did the nickname "cannibal battalion" refer to in World War II?
   Yes--includes many World War II nicknames
B. Where was "noname ridge"?
   Yes--gives locations of code name places
C. How do you pronounce "sidcot suit"?
   No--has no pronunciation
D. What was the code name for Aswan, Egypt during World War II?
   Yes--gives period of use and nation using term

Johnson, Burges. New Rhyming Dictionary and Poets' Handbook. 1957.

SCOPE: Rhyme sounds. Handbook defines and illustrates regular meters and forms of poetry.

ARRANGEMENT: Rhyme sounds grouped by number of syllables. Alphabetical order, each grouping by ending.

The New Rhyming Dictionary and Poets' Handbook would answer which questions:
A. Are there any words which rhyme with deity?
   Yes--rhymes can be found under 3-syllable rhyme ending in alphabetical listing
B. What is anapestic dimeter?
   Yes--defines and illustrates meters
C. What words end with the sound "ot"?
   Yes--lists words with one syllable endings under each ending
D. What is blank verse?
   No--does not treat unrhymed verse

DICTIONARIES--Review questions

Where would you find:
1. A traditional explanation of the proper use of the comma?
   Follett. Modern American Usage; A guide; Fowler. Dictionary of Modern English Usage; Webster's Seventh New Collegiate Dictionary
2. The meaning of the abbreviation, et al.?
   DeSola. Abbreviations Dictionary
3. What UNICEF stands for?
   Gale Research Co. Anronyms and Initialisms
4. A permissive description of the correct usage of the expression "constructive criticism"?
   Evans. A Dictionary of Contemporary American Usage
5. An old fashioned explanation on the proper use of the word "dastardly"?
   Fowler. Dictionary of Modern English Usage
6. Where "million dollar hill" was and when the term was used?
   Ruffner. Code Names Dictionary

7. A definition and some examples of the sonnet form of verse?
   Johnson. New Rhyming Dictionary and Poets' Handbook

DICTIONARIES--Post test

Where would you find:

1. A list of synonyms for the word "necessary"?
   Lewis. New Roget's Thesaurus of the English Language in Dictionary Form; Webster's Dictionary of Synonyms
2. A listing of the major world events of the 1450's?
   Random House Dictionary of the English Language
3. What the abbreviation "logo" means?
   DeSola. Abbreviations Dictionary
4. Synonyms and antonyms for the word "sweet"?
   Webster's Dictionary of Synonyms; Lewis. New Roget's Thesaurus of the English Language in Dictionary Form
5. An explanation with quotes on the meaning of "moonshiner"?
   Craigie. A Dictionary of American English on Historical Principles; Mathews. A Dictionary of Americanisms on Historical Principles
6. A discussion of the traditional usage of "such" as a pronoun?
   Follett. Modern American Usage; Fowler. Dictionary of Modern English Usage
7. Etymology of "shoe" with quotations showing usage since 1150 A.D.?
   Murray. Oxford English Dictionary
8. What does ROCCM stand for?
   Gale Research Co. Acronyms and Initialisms Dictionary
9. The correct pronunciation of "Uruguay"?
   Bender. NBC Handbook of Pronunciation
10. An informal, descriptive explanation of the correct usage of the terms "apprise" and "apprize"?
    Evans. A Dictionary of Contemporary American Usage
11. Words which rhyme with "florist"?
    Johnson. New Rhyming Dictionary and Poets' Handbook
12. What the Latin phrase modus vivendi means?
    Funk & Wagnall's Standard College Dictionary; Webster's Third
13. Who used the name "Clarence" during World War II and what did it designate?
    Ruffner. Code Names Dictionary

HANDBOOKS OF INFORMATION

Hazeltine, M.E. Anniversaries and Holidays. 1944.

SCOPE: Part I. Calendar. Contains brief identification of persons and events. For outstanding holidays gives origin, history, customs, list of books about day.
Part II. Bibliography of materials including plays and pageants about holidays, special days, and seasons. Indicates grade levels, if for children.
Part III. Bibliography of persons referred to in calendar.
Part IV. Classified index of persons, grouped by interest or occupation.
Part V. General index.

Would the following be found in this work:
A. Books of poetry for children about the Fourth of July?
Yes--indicates books about holidays suitable for children
B. The birth date of Mohammed?
Yes--includes information about important historical persons

Krythe, M.R. All About American Holidays. 1962.

SCOPE: Explains origins and methods of celebrating selected seasonal, religious, and historical holidays. Especially good for minority group observances in U.S. Bibliography of books and articles.

ARRANGEMENT: Calendar. Subject index.

Would the following be found in this work:
A. Customs observed by Jews in celebrating Purim?
Yes--modern customs of observance are given for important religious holidays
B. An account of the origin of Father's Day?
Yes--historical background and origins of holidays are presented
C. A list of books about holidays?
Yes--has a bibliography of books and articles at end of volume
D. Information about the way the Mohammedans celebrate Ramadan in Pakistan?
No--only includes American holidays

Douglas, G.W. The American Book of Days. 1948.

SCOPE: Information about holidays, birthdays, festivals, anniversaries. Good for local celebrations. Gives historical background and customs practiced for each event. Historical events.

ARRANGEMENT: Calendar. Movable feasts listed according to 1945 observed dates. Subject index.

Would the following be found in this work:
A. The birth date of Calvin Coolidge?

Yes--has birth dates of important Americans

B. Brief information about the Battle of Brandywine?
Yes--includes anniversaries of important historical events

C. The birth date of Caroline Kennedy?
No--too recent. Coverage ends in 1948.

D. The date President Jackson was cersured by the Senate?
Yes--important dates in American history are noted

HANDBOOKS OF INFORMATION--Review questions

Where would you find:

1. A bibliography of articles on Memorial Day?
   Krythe. All About American Holidays; Hazeltine. Anniversaries and Holidays
2. A listing of important lawyers?
   Hazeltine. Anniversaries and Holidays
3. Background and customs for celebrating the Fourth of July?
   Douglas. The American Book of Days; Krythe. All About American Holidays; Hazeltine. Anniversaries and Holidays

Guinness Book of World Records. 1968.

SCOPE: Sections on human beings, animals, plants, universe, science, arts, entertainment, business, buildings, mechanics, and sports. Strongest on sports. Many records, tabular and historical. Gives highest, largest, shortest, fattest, etc. Sources not listed.

ARRANGEMENT: By subject. Subject index.

Would the following be found in this work:

A. World's largest castle and its location?
Yes--treats buildings

B. World's gastronomic record for eating bananas?
Yes--has wide area of topics concerned with human beings

C. The events which happened on December 3, 1911 in the world?
No--has no approach by date

D. The holder of the world's record for non-stop talking?
Yes--human endurance records given by type

Benet, W.R. The Reader's Encyclopedia. 1965.

SCOPE: All nations, all periods. Plots and characters of novels and plays, biographies, literary schools and movements, resumes of poems, historical, geographical, classical, mythological and biblical allusions, definitions, descriptions of musical compositions and works of art, slang. Illustrations.

Would the following be found in The Reader's Encyclopedia:

A. A brief biography of George Bernard Shaw?
Yes--has biographies of writers

B. A biography of Eleanor of Aquitaine, Queen of Louis VII?
Yes--has biographies of historical personages

C. A summary of the "Odyssey"?
Yes--gives plot summaries

D. An explanation of existentialism?
   Yes--describes literary movements and schools.
E. An identification of Anna Karenina?
   Yes--identifies characters
F. An indentification of Greenwich Village?
   Yes--includes places of literary importance.

Kane, J.N. Famous First Facts. 3rd ed. 1964.

SCOPE: Discoveries, events, and inventions in the U.S. Many entries have source references. Four indexes: by day of the month, by year, by geographical location, and by names of people involved. Coverage through 1962.

ARRANGEMENT: Alphabetical by subject.

Would the following be found in this work:
A. The "firsts" which occurred in Ann Arbor, Michigan?
   Yes--has geographic approach in index
B. The first automobile fatality in Windsor, Ontario?
   No--only includes U.S. "firsts"
C. The "firsts" recorded on December 19, 1620?
   Yes--indexed by day of the month and year
D. The first article recently written by Ward McGrath, a struggling journalist in Cygnet, Ohio?
   No--too recent. Coverage only through 1962.

Shankle, G.E. American Nicknames, Their Origin and Significance. 1955.

SCOPE: Persons, places, things. References to sources.

ARRANGEMENT: Alphabetical.

Which items might be found in Shankle:
A. A bibliography of sources for information about the "Red Legs" of the Civil War?
   Yes--gives source references
B. The meaning of "Seward's Folly" as applied to Alaska?
   Yes--includes information about origins and meanings of nicknames for places
C. Who was "The Borax King"?
   Yes--includes nicknames given to persons
D. Which college athletic teams are known as the "Lord Jeffs"?
   Yes--has college team nicknames

Vanderbilt, Amy. New Complete Book of Etiquette. 1967.

SCOPE: Forms of address, invitations, weddings, funerals, travel abroad, entertaining, correspondence, dress and manners, college living, household management, education of children, etc. Illustrated.

Would the following be found in this work:
A. Advice on what to wear for an audience with the Pope?

Yes--includes advice about dress and manners when travelling abroad

B. A diagram showing a table setting for a formal luncheon?
Yes--has illustrative drawings

C. A list of good hotels in various European cities?
No--only gives general advice on travel and hotel living

D. A list of items for the bride's trousseau?
Yes--gives very detailed information about weddings

Robert, H.M. Rules of Order Revised... 1951.

AUTHORITY: Based on rules and practices of Congress.

SCOPE: Rules for making motions, debating, voting and conducting business in meetings, duties of various officers and committees, methods of organizing and conducting various kinds of meetings, legal rights of assemblies and members. Index to contents.

Would the following be found in this work:

A. The proper way to recess a meeting?
Yes--gives rules for conducting business including recessing a meeting

B. How does one second a motion?
Yes--rules for making and seconding motions given

C. What is the correct form for the minutes of a meeting?
Yes--duties of the secretary are explained, including the taking of minutes

D. What are the duties of a treasurer?
Yes--the various officers' duties are given

Menke, F.G. The Encyclopedia of Sports. 4th ed. 1969.

SCOPE: Descriptive, historical, and statistical data. Basic rules. Diagrams. Names and records of champions.

ARRANGEMENT: Alphabetically by sport.

Would the following be found in this work:

A. The positions and number of players on a volleyball court?
Yes--gives rules, including number of players with diagram of players' positions

B. The name of the champion of the U.S.G.A. Open in 1956 (United States Golf Association).
Yes--has names and records of champions

C. A recent picture of Tom Harmon?
No--pictures are limited to illustrations of form or technique

D. Information about the history of archery?
Yes--gives historical background for each sport

HANDBOOKS OF INFORMATION--Review questions

Where would you find:

1. The proper way to make an introduction at a party?
Vanderbilt. New Complete Book of Etiquette

2. A brief summary of King Lear?

Benet. The Reader's Encyclopedia

3. A list of National League batting champions since 1901?
   Menke. The Encyclopedia of Sports
4. Must you be recognized by the chair before seconding a motion?
   Robert. Rules of Order Revised
5. What is the world's longest suspension bridge?
   Guinness Book of World Records
6. Who made the first non-stop, cross-country airplane flight in the U.S.?
   Kane. Famous First Facts
7. How did the nickname "Hoosier" originate for the State of Indiana?
   Shankle. American Nicknames

HANDBOOKS OF INFORMATION--Post test

Where would you find:

1. Who was the first astronaut?
   Kane. Famous First Facts
2. A bibliography of books on Ash Wednesday?
   Krythe. All About American Holidays; Hazeltine. Anniversaries and Holidays
3. What is the correct way to announce the arrival of a new baby?
   Vanderbilt. New Complete Book of Etiquette
4. A history of the origin of golf?
   Menke. The Encyclopedia of Sports
5. An identification of the literary character Raskolnikov?
   Benet. The Reader's Encyclopedia
6. A bibliography of materials on George Washington?
   Hazeltine. Anniversaries and Holidays; Krythe. All About American Holidays
7. The duties of a vice president of an organization?
   Robert. Rules of Order Revised
8. Who is the world's fattest man?
   Guinness Book of World Records
9. Background information on the Battle of New Orleans?
   Douglas. The American Book of Days; Krythe. All About American Holidays; Benet. The Reader's Encyclopedia
10. Who was called the "Poet of the American Revolution"?
    Shankle. American Nicknames

SERIAL PUBLICATIONS

Kujoth, Jean Spealman. Subject Guide to Periodical Indexes and Review Indexes. 1969.

SCOPE: Descriptions of currently published periodical and review indexes. Includes foreign language publications. Gives title, imprint, frequency, arrangement, content, subjects, and type of information indexed --articles, reviews of fiction, music, records, etc.--and whether it has abstracts, excerpts, annotations.

ARRANGEMENT: Pt.1. Academic-Subject index. Lists by title under broad subject heading.
Pt.2. Alphabetical by title.
Pt.3. Summary of titles listed by type of information indexed.

Which questions might Kujoth answer:
A. Does Population Index include materials from books as well as from periodicals?
Yes--indicates kind of materials indexed
B. Where could one find articles about ophthalmology indexed?
Yes--has list of titles by subject
C. Are there any play review indexes?
Yes--has titles listed by type of information indexed
D. How often is British Technology Index published?
Yes--gives frequency
E. What subjects does the Topicator index cover?
Yes--lists subjects indexed

Poole's Index to Periodical Literature. 1802-1881. Supplements 1882-1906.

SCOPE: English language general periodicals indexed.

ARRANGEMENT: Subject. Belles lettres under title. Reviews under subject. Belles lettres reviews under name of author reviewed.

Which of the following could be found in this work:
A. An article about fireproof construction printed before 1881?
Yes--has subject approach
B. A list of magazine articles written by Edgar Allen Poe?
No--has no author approach to articles
C. Which magazine printed the poem "Eve of St. Andrew"?
Yes--lists belles lettres by title
D. A review of Hemingway's The Sun Also Rises?
No--coverage ends in 1906

Reader's Guide to Periodical Literature. 1900-

SCOPE: Author and subject index to articles in popular, general U.S. periodicals. Title entries for stories. Entries include author's name, title, name of periodical, volume number, pagination, and date. Notes, illustrations, and bibliographies.

FREQUENCY: Semi-monthly issues September to June and monthly issues in July and August. Cumulated quarterly and annually.

Would the following be found in this work:

A. An article on freight rates in the U.S.?
   Yes--includes articles on business and industry
B. A 1929 article about abolishing Sunday?
   Yes--covers articles on wide variety of topics with subject approach
C. An article on music by Herbert van Karajan published in the Saturday Review in 1965?
   Yes--covers music; has author approach
D. A description of Andre Gide's style of communism?
   No--gives only bibliographic data. Has no text or annotations.

International Index. 1907-65. Social Sciences and Humanities Index. 1965-

SCOPE: Index to scholarly American and British periodicals. Author and subject index. Sold on service basis.

FREQUENCY: Quarterly with annual cumulations.

Would the following be found in this work:

A. "Mes Souvenirs de Russie, 1916-1919" by Princess Paley?
   No--does not cover foreign language materials
B. An article by F.R. Morehead, Jr. about laser beams?
   No--science not covered, only social sciences and humanities
C. An article "Existential Theology and Metaphysics" by F. Sontag?
   Yes--articles on religion and philosophy included; has author approach
D. An article on German reunification?
   Yes--covers political science

SERIAL PUBLICATIONS--Review questions

Where would you find:

1. A recent article in a popular magazine about the economic conditions in Japan?
   Reader's Guide to Periodical Literature
2. A list of recent scholarly articles about the technique of writing fiction?
   International Index. Social Sciences and Humanities Index
3. Which index books and periodical articles have been written recently in the field of anthropology?
   Kujoth. Subject Guide to Periodical Indexes and Review Indexes
4. In which periodical an article by Henry James titled "Daumier, the Caricaturist" appeared in the late 19th century?
   Poole's Index to Periodical Literature

N.W. Ayer and Son's Directory of Newspapers and Periodicals (containing American Newspaper Annual and Directory): A guide to the publications printed in the U.S. and its territories, the Dominion of Canada, Bermuda, the Republics of Panama and the Philippines; descriptions of the states, provinces, cities and towns in which they are published; classified lists; maps. 1880-

SCOPE: Annual. Statistical data on population, employment and income.

Descriptive and gazeteer information for states, provinces, cities and towns, stating location, population, industries and products, etc. Lists of periodicals and newspapers by place, giving frequency, political bias, founding date, number of columns, page size, subscription price, circulation, editor and/or publisher's name and address. Classified lists as follows: daily newspapers; daily periodicals; Sunday weeklies; weekly, semi-weekly, and tri-weekly newspapers; newspaper feature, picture and news syndicates; special sections of newspapers in which advertising can be placed by groups; special newspaper groups and representative organizations; agricultural, college, foreign language, Negro, religious, fraternal, trade and technical and labor publications; magazines of general circulation by subject.

ARRANGEMENT: Geographic. Subject index. Alphabetical index (omits daily and weekly newspapers).

Would the following be found in this work:

A. The circulation of the Michigan Daily?
   Yes--has college publications
B. A list of all the daily newspapers published in Massachusetts?
   Yes--daily newspapers are listed by place in classified listing
C. A list of serial publications about brides?
   Yes--has subject index to publications
D. The name of a Chinese daily newspaper published in Vancouver, British Columbia?
   Yes--has foreign language newspapers listed by place

Editor and Publisher. International Year Book. 1920/21-

SCOPE: Lists by place U.S. and Canadian daily newspapers giving: population, circulation, price, address, telephone number, special information on advertising policy and rates, political affiliation, date established, special editions and news services, names of departmental personnel. Also lists with addresses: national newspaper groups, weekly newspapers, Negro newspapers, offset newspapers, Sunday newspapers, special service dailies, newspaper employee and carrier publications, magazine and comic section groups, newspaper representatives, equipment, supplies and services, advertising agencies, foreign newspaper representatives and correspondents in U.S., syndicates, journalism schools, films and books on journalism, associations and clubs, awards, newsprint and wage scale statistics.

Would the following be found in Editor and Publisher:

A. Whether the Ann Arbor News accepts mail order advertising?
   Yes--gives information on advertising policies
B. The name of the manager of the circulation department of the Milwaukee, Wisconsin Journal?
   Yes--names of staff are given

The Working Press of the Nation. 1947-

SCOPE: Directories with names, titles and addresses.

FREQUENCY: Annual

ARRANGEMENT: I. Newspaper directory
Editorial departments of daily newspapers classified by fields. Includes names of editors and writers. Lists news services, newsreels, photoservices,special interest newspapers, weekly newspapers, and foreign newspapers. Gives address, circulation, wire services, politics, supplements.

II. Magazine directory (U.S. and Canada)
Alphabetical index; group index for service, trade, profession, industry, agriculture and consumer publications. Provides names of editors and executives, address, deadlines, page size and column width, charges, payment policies, editorial interest, readership analyses, circulation.

III. Radio and television directory (U.S. and Canada)
Lists by power, news services and personnel. For local programs provides name of program, description, master of ceremonies, broadcast days and times, whether guests are used.

IV. Feature writer and syndicate directory (U.S.)
Alphabetical list of leading free lance writers, giving address and subject specialties. Alphabetical list of subject matter in which writers specialize. Publications served by free lance writers. Explanations by magazine editors describing type of articles they seek. Sources of illustrations. List of free lance photographers. Feature syndicates and personnel, with subject index.

Which items would you find in The Working Press of the Nation:

A. Who is the news director of radio station WFLA in Tampa, Florida?
Yes--lists personnel of radio stations

B. Are there any British magazines published about hospital management?
No--only U.S. and Canadian magazines are covered

C. What kind of people read the American Daily Review magazine?
Yes--includes information about readers

D. What kind of photographs does Win Muldrow specialize in?
Yes--gives principal subjects of free lance photographers

E. Which wire services does the Portland Oregon Journal use?
Yes--lists wire services used by newspapers

New Serial Titles. 1950-

SCOPE: Supplement to Union List of Serials. Lists new serials published since 1950 held in cooperating U.S. and Canadian libraries. International coverage, all languages. Excludes newspapers, loose-leaf publications, books in parts, municipal government serial documents, publishers series, motion pictures, filmstrips and phonorecords. Each entry gives: name of issuing body, place of publication, date and number of first and/or last issue, frequency, address, price, Dewey number, names of holding libraries and loan policies. Lists cessations and changes in titles.

FREQUENCY: Monthly. Annual, five-year, and ten-year cumulations.

ARRANGEMENT: Alphabetical by corporate entry or title. Monthly New Serial Titles - Classed Subject Arrangement appears separately with no cumulations.

Would the following be found in this work:

A. The names of libraries which will lend periodicals?
   Yes--indicates loan policies of cooperating libraries
B. A list of libraries which receive a given serial?
   Yes--has list of holding libraries for each serial
C. Locations in libraries of copies of the Christian Science Monitor?
   No--does not cover newspapers
D. A list of periodicals published in Chinese?
   No--no approach by language

Ulrich's International Periodicals Directory; A classified guide of current periodicals, foreign and domestic. 1932-

SCOPE: All subjects. Entries give title, date of origin, frequency, language(s) of text, price, editor, publisher with address, circulation, illustrations, maps. Availability of annual and cumulative indexes as well as whether articles from the periodical are indexed in other publications. Indications of book, film, or record reviews, bibliographies, yearbooks, supplements, abstracts, special numbers, and whether available on microform or other form.

SPECIAL FEATURES: List of money symbols for foreign countries, list of abstracting and indexing services. Foreign exchange conversion table. Cessations list. Key to subjects, with page numbers, in English, French, German, and Spanish.

ARRANGEMENT: Alphabetical and by subject; subject and title index. Also index to countries in which periodicals are published.

Would the following be found in this work:

A. A list of current periodicals concerned with American Indians?
   Yes--has alphabetical listings of periodicals by subject
B. Whether the Journal of Social Sciences carries book reviews?
   Yes--indicates inclusions of book reviews
C. Whether the German periodical Fordern und Herben is translated into other languages?
   Yes--states in what languages the text is written
D. Where the British Journal of Radiology is indexed?
   Yes--indicates whether periodicals are indexed or abstracted elsewhere, giving name of indexing service

Union List of Serials in Libraries of the U.S. and Canada. 5 v. 1965.

SCOPE: Over 156,000 serial titles held in 956 libraries as of December, 1949. International coverage. Indicates library's lending policy and availability of microforms. Each entry gives: title, subtitle, issuing agency (if an association, etc), date of first and/or last issue (if defunct), history of title changes and suspensions, and

holdings in reporting libraries. Omits: government publications (except periodicals and monographic series issued by governments); administrative reports of societies, universities, corporations, etc.; almanacs; gift books; American newspapers; English and other foreign newspapers published after 1820; law reports and digests; publications of agricultural and other experimental stations, of local, religious, labor, fraternal organizations, boards of trade, chambers of commerce, national and international conferences and congresses; house organs; alumni and undergraduate and intercollegiate fraternity publications; trench papers; U.N. publications; titles with limited or ephemeral value.

ARRANGEMENT: Alphabetical by corporate author or title. Cross references from changed or alternative titles.

Would the following be found in this work:

A. The year the Atlantic magazine began publication?
   Yes--gives date of first issue
B. Does the University of Michigan Library have complete holdings of the Journal of the American Medical Association?
   Yes--lists holdings in reporting libraries
C. Which libraries have copies of The Upper Room, published monthly by the Methodist Church?
   No--omits religious publications

Irregular Serials and Annuals: An international directory; a classified guide to current foreign and domestic serials, excepting periodicals issued more frequently than once a year. 1st ed. 1967.

SCOPE: Data on 14,500 current publications last issued after January 1, 1960, but less than twice a year. Includes yearbooks, annuals, conference proceedings, etc. Listings give title, subtitle or annotation, languages of text, year first published, frequency, date of latest issue, price, name and address of publisher, editor's name, index, and Dewey number(s).

ARRANGEMENT: Subject, with cross index to subjects and title-subject index.

Would the following be found in this work:

A. The address of the issuing body of Advances in Automobile Engineering?
   Yes--gives address of publisher of issuing body.
B. The price of the Japan Economic Year Book?
   Yes--price is listed
C. How often is Behavior Science Outlines published?
   Yes--information on frequency is given

SERIAL PUBLICATIONS--Review questions

Where would you find:

1. The advertising rate of the Valley News, a Lebanon, N.H. newspaper?
   Editor and Publisher. International Year Book; Ayer. Directory of Newspapers and Periodicals
2. Is there a daily newspaper published in Darien, Connecticut?
   Ayer. Directory of Newspapers and Periodicals; Editor and

Publisher. International Year Book

3. The name and phone number of the station manager of CKLW-radio in Detroit?
   The Working Press of the Nation
4. Which Canadian libraries receive Norois, a French geographic magazine which began publication in 1954?
   New Serial Titles
5. Are there any current periodicals published about the grocery trade?
   Ulrich's International Periodicals Directory
6. When was Whitaker's Almanack founded?
   Irregular Serials and Annuals

Book Review Digest. 1905-

SCOPE: Index to and quotations from reviews of books published in the U.S. which appeared in 75 English and American general periodicals. Full bibliographic information, including price, for each book listed; with descriptive notes, citations to reviews, giving name of periodical, volume and page numbers and number of words in review, name of reviewer and quotations from selected reviews. Dewey numbers and subject headings for non-fiction. YA used to indicate suitability for young adults.

FREQUENCY: Monthly. Semi-annual and annual cumulations.

ARRANGEMENT: Alphabetical by author of book reviewed. Subject and title index. Cumulative five-year subject-title indexes.

Would the following be found in this work:

A. Reference to reviews of an article published in the National Geographic Magazine?
   No--has reviews of books only, no magazine articles included
B. The name of the person who wrote a review quoted in the Digest?
   Yes--gives reviewer's name
C. A review of a recent anatomy textbook for medical students?
   No--very specialized, technical books are not included. Emphasizes books for lay readers.
D. Reviews of books suitable for junior high school students?
   Yes--indicates books of value for young adults

Book Review Index. 1965-

SCOPE: Lists book reviews in over 200 periodicals and selected newspapers. Good coverage of social sciences and humanities, including scholarly works and foreign language titles. Gives author, title, list of periodicals with reviews, citing volume number, date of issue, page, and reviewer's name (at times).

FREQUENCY: Annual.

ARRANGEMENT: Author (of book reviewed).

Which items are found in Book Review Index:

A. Excerpts of reviews quoted from periodicals?

No--has no excerpts, only list of review citations

B. A list of periodicals which reviewed a book published in 1958?
No--covers only current publications, beginning in 1965

C. In which issue of the New York Times is Gunter Grass' novel Dog Years reviewed?
Yes--gives date of issue

D. A list of books with review citations recently written about Karl Marx?
No--has no subject approach, only author

E. The imprint for each book listed in the Index?
No--gives author and title only

New York Times Index. 1851-

SCOPE: Indexes and summarizes news in the New York Times. Indicates illustrative material. Serves as key to other newspapers. Date, page, and column reference given for each item.

FREQUENCY: Twice monthly and yearly cumulative volume.

ARRANGEMENT: Subjects, then chronological, except such entries as "Book Reviews," "Theatre Reviews," "Deaths," etc. which are arranged alphabetically.

Would the following be found in this work:

A. Recently the Queen Mary was sold to Long Beach, California. What was the purchase price?
Yes--often gives summaries of articles

B. Location of articles in which Times drama critics discussed the play MacBird?
Yes--has play reviews with date, page, and column references

C. Reference to the news article on America's Cup trials (sailboat) races held in July, 1967?
Yes--covers sports events of national and international interest

SERIAL PUBLICATIONS--Post test

Where would you find:

1. A list of magazine articles about Benjamin Disraeli published during the 19th century?
Poole's Index to Periodical Literature

2. In what scholarly journal did an article on the Protestant ethic by Reinhard Benkix appear in 1967?
International Index. Social Sciences and Humanities Index

3. Did William Mann's book on Richard Strauss, which appeared in 1966, receive favorable reviews?
Book Review Digest

4. What is the political bias of the Boonville, Indiana Enquirer?
Ayer. Directory of Newspapers and Periodicals

5. Who publishes the serial Rio Grande Do Sul, which began in 1960?
New Serial Titles; Ulrich's International Periodicals Directory

6. Where can one find a list of reviews of art shows which opened in New York City in 1967?
New York Times Index

7. What articles did Bernard Jacobson write about Igor Stravinsky in Hi Fidelity magazine in 1966?
   Reader's Guide to Periodical Literature
8. Who are the chief editors of the Fairfield, Iowa Ledger, a daily newspaper?
   Editor and Publisher. International Year Book; Ayer. Directory of Newspapers and Periodicals
9. Does the YWCA Magazine contain book reviews?
   Ulrich's International Periodicals Directory
10. What is the address of the publishers of the Frozen Foods Year Book?
    Irregular Serials and Annuals
11. The name and address of a free lance writer who specializes in detective fiction?
    The Working Press of the Nation
12. The titles of some indexes which have reviews of recent motion pictures?
    Kujoth. Subject Guide to Periodical Indexes and Review Indexes
13. A list of reviews of John Hersey's book Under the Eye of the Storm?
    Book Review Index

Yearbook of International Organizations. 1948-

SCOPE: Descriptions of international, non-profit organizations. Includes defunct organizations. Gives addresses, officers, founding date, aims, structure, members, languages, activities, finance, conferences, publications.

ARRANGEMENT: Classified membership lists, geographic index, subject index in French. Single alphabetical listing of titles in English initials or acronyms, names of presidents and secretaries-general, and keywords.

Would the following be found in this work:

A. The address of the headquarters of the International Society for Soil Mechanics and Foundation Engineering?
   Yes--gives addresses
B. The countries participating in the World Council of Churches?
   Yes--classified listings give names of member countries
C. A capsule description of the structure and purposes of the U.N.?
   Yes--includes information on structure and organization
D. A description of the International Telephone and Telegraph Co.?
   No--only non-profit organizations are covered
E. Information by which the reader can make a comparison of the World Peace Through Law Center and the World Association of World Federalists?
   Yes--summaries of aims, structure, activities, etc. can be used for comparisons

The Foundation Directory. 1960-

SCOPE: Address, name of donor, purpose, activities, assets, gifts, expenditures and grants, officers of more than 6000 American foundations.

ARRANGEMENT: Alphabetical by state. Indexes: subject fields, officers, alphabetical list of foundations.

Would the following be found in this work:

A. Who is the donor of the Coleman Charitable Trust located in Kansas?
   Yes--states name of donor
B. What is the general purpose of the Metropolitan Foundation of Atlanta, Georgia?
   Yes--gives information about purpose
C. Where is the Starr Foundation located?
   Yes--addresses given
D. Can you give me some financial data about the Merrill Foundation?
   Yes--includes financial data

Directory of Information Resources in the U.S. Federal Government. With a supplement of government sponsored information resources. 1967.

SCOPE: Lists of federal organizations and government sponsored information sources. For each organization states address, telephone

number, functions, areas of interest, holdings by type, publications, and information services provided.

ARRANGEMENT: Alphabetical by name of department, agency, or organization. Organization index. Subject index.

The Directory would give which items of information:

A. Does the Kentucky Agricultural Experiment Station make interlibrary loans?
   Yes--indicates kinds of services provided
B. Where could one write for information about tides and currents?
   Yes--subject index lists organizations specializing in each subject
C. How much does Index Medicus, published by the National Library of Medicine, cost?
   No--no prices are given for publications
D. What do the holdings of the Statistical Reporting Service consist of?
   Yes--lists holdings by kind, as books, reports, serials, etc.
E. What special collections are in the University of Illinois Library?
   No--treats only federally sponsored institutions

Encyclopedia of Associations. 5th ed. 1968.

SCOPE: Volume I. National, non-profit organizations of the U.S. Includes some foreign, local, and regional groups of national interest. Excludes state and local chambers of commerce.
Volume II. Geographic and Executive index. Geographic approach and identification of executives.
Volume III. New Associations. Up-dating service, quarterly.

Each entry gives: name, acronym, keyword, address, chief official, founding date, number of members, staff size, number of state and local chapters, affiliated groups, activities and purposes, committees, sections and divisions, publications, mergers and name changes, meetings.

Would the following be found in this work:

A. What organizations are headquartered in Dearborn, Michigan?
   Yes--has a geographic index by state and city
B. With what organization is Harry M. Gehman connected?
   Yes--executive index lists names of officials
C. Who publishes Opportunity News which comes out annually?
   No--no approach by name of publication
D. How many local chapters does the Federal Bar Association have?
   Yes--gives the number of local chapters

Museums Directory of the U.S. and Canada. 2nd ed. 1965.

SCOPE: Art, historical, and scientific museums, zoos, aquariums, botanical gardens, and college and university museums. Each entry gives: founding and opening dates, personnel, address,, telephone number, collections, activities, governing authority, hours, admission fee.

ARRANGEMENT:
I. Institutions by State and Province.
II. Institutions by Name.
III. Institution Directors and Department Heads.
IV. Institutions by Category.

Subject index of collections and activities.

Would the following be found in this work:
A. The location of the American Antiquarian Society?
Yes--addresses are given. City locations are noted in institutional name index.
B. The name of the director of the Art Gallery of Hamilton, Ontario?
Yes--includes names of chief personnel

DIRECTORIES--Review questions

Where would you find:
1. What is the address of the Louis Lerner Foundation?
The Foundation Directory
2. What is the address of the Lingerie Manufacturers Association?
Encyclopedia of Associations
3. What special collections does the Miami Museum of Modern Art have?
Museums Directory of the U.S. and Canada
4. Which countries are members of the International Metalworker's Federation?
Yearbook of International Organizations
5. What are the areas of interest of the Women's Bureau of the U.S. Department of Labor?
Directory of Information Resources in the U.S. Federal Government

Directory of Post Offices. 1955-

SCOPE: Lists of post offices in the U.S. and territories arranged geographically, alphabetically, and by zip code. Discontinued postal units listed.

Would the following be found in the Directory of Post Offices:
A. What town uses zip code number 62501?
Yes--has list of post offices by zip code number
B. Is there a post office in Hell, Michigan?
Yes--can locate in alphabetical listing of towns or in geographic list
C. Can I still mail a letter to Irish Hills, Michigan?
Yes--has list of discontinued postal units with substitute addresses and zip codes

Thomas' Register of American Manufacturers. 1968.

SCOPE: Volumes I-VI. Manufacturers classified by products and sub-arranged by place.
Volume VII. Lists of manufacturers, trademarks and brand names by alphabetical order, and commercial organizations. Gives address, cable address, officers, indication of size, branches, sub-

sidiaries, changes, assets, overseas trade, etc.

Volume VIII. Index covers all volumes and includes products and advertisers.

Would the following be found in this work:

A. Does Acheson Colloids Corp. solicit overseas trade? If so, what is the cable address?
Yes--indicates overseas trade and has cable addresses

B. What is the capital rating of the Western Supplies Co.?
Yes--rates assets of companies

C. Where are the branch offices of the Allis-Chalmers Manufacturing Co. located?
Yes--addresses of branches are given

D. Are there any factories in Ohio that manufacture wooden cigar boxes?
Yes--main list is classified by product and subdivided by place

E. Who uses the Pensco trademark?
Yes--has extensive listings of trademarks and brand names

Hotel and Motel Red Book. 1886-

SCOPE: Annual. Membership list of American Hotel and Motel Association including foreign members. Address, telephone number, number of rooms, rates, name of manager, location in relation to downtown, airport, etc.

SPECIAL FEATURES: Hotel chains, with locations of individual hotels; list of hotels with business meeting facilities giving banquet capacity, exhibit space, number of meeting rooms, etc.

ARRANGEMENT: Geographic.

Would the following be found in this book:

A. What are the locations of all the Sheraton hotels and motels?
Yes--names and locations of hotels owned by large chains listed

B. Are there any American hotel establishments in Baghdad, Iraq?
Yes--membership includes foreign hotels

C. What are the overnight rates for a double room at the Howard Johnson establishment in Concord, New Hampshire?
Yes--lists rates

The Official Guide of the Railways, and Steam Navigation Lines of the United States, Puerto Rico, Canada, Mexico, and Cuba, also Timetables of Railroads in Central America. Air line information. 1868-

SCOPE: Timetables, maps, fares, office locations. Includes information on freight service.

FREQUENCY: Monthly.

ARRANGEMENT: Index of points reached by water routes, index of railroad stations on the railroads, index of points served by air passenger lines. Also indexes for national parks, military reservations, and lists of government hospitals. Index to transportation lines in front.

Would the following be found in the Official Guide of the Railways:

A. Address of the general offices of the Lehigh and New England Railway

Company?
Yes--office addresses given

B. How many railroad companies serve Detroit?
Yes--listed by place in index of railroad stations

C. What is the rail fare between Chicago and Los Angeles on the Super Chief?
Yes--gives fares

Official Airline Guide. World-wide timetable edition. 1944-

SCOPE: Timetables, maps, fares. Air taxis. Air travel requirements, exchange rates, credit card acceptance. Covers national and international airlines.

FREQUENCY: Monthly.

ARRANGEMENT: For scheduled airlines, arrangement is alphabetical by name of airline. Gives home addresses of each. Quick reference index for flights between major U.S. cities.

Would the following be found in this work:

A. The credit cards Japan Air Lines will accept?
Yes--lists carrier acceptance of credit cards

B. Which airlines fly between Boston and Albany?
Yes--lists flights between major U.S. cities

C. The cost to fly on Delta Air Lines from Chicago to Caracas, Venezuela?
Yes--gives fares

D. A map showing the routes flown by Mexicana Airlines?
Yes--has route maps

DIRECTORIES--Review questions

Where would you find:

1. How much is a single room at the Gulfstream Hotel in Fort Lauderdale?
Hotel and Motel Red Book
2. What factories in Michigan manufacture hydraulic couplings?
Thomas' Register of American Manufacturers
3. How much is the airline fare between Detroit and Acapulco, Mexico?
Official Airline Guide
4. What is the proper zip code for Fort Rock, Oregon?
Directory of Post Offices
5. Who is the president of the Pittsburgh and Lake Erie Railroad?
Official Guide of the Railways

DIRECTORIES--Post test

Where would you find:

1. What city uses zip code number 38839?
Directory of Post Offices
2. When was the International College of Surgeons founded?
Yearbook of International Organizations
3. Does Braniff International Airlines fly to Mexico City from New York City?
Official Airline Guide

4. What publications are put out by the Arkansas Agricultural Experiment Station?
   Directory of Information Resourses in the U.S. Federal Government
5. Does the Taft Hotel have good business meeting facilities?
   Hotel and Motel Red Book
6. Who is the director of the Tennessee State Museum?
   Museums Directory of the U.S. and Canada
7. What is the address of the main office of the Boston and Maine Railroad?
   Official Guide of the Railways
8. What is the name of the donor of the Burke Foundation?
   The Foundation Directory
9. Does anyone make florescent light fixtures in Boston?
   Thomas' Register of American Manufacturers

Poore, B.P. Descriptive Catalogue of the Government Publications of the U.S. (1774-1881). 1885.

SCOPE: Title, author, date, abstract, and location. 63,063 titles with 10,000 omissions.

ARRANGEMENT: Chronological. Subject and name index.

Would the following be answered by this work:
A. What are the contents of the Madison papers?
   Yes--has brief abstracts to indicate scope
B. Who wrote the report on the Piute Indians which was published in 1872?
   Yes--author given
C. On what date was W.H. Scribner awarded a disability pension by Congress for injuries received in the Civil War?
   Yes--dates included
D. What message did President Theodore Roosevelt deliver to Congress on February 17, 1902?
   No--covers to 1881 only

Ames, J.G. Comprehensive Index to the Publications of the U.S. Government. (1181-1893). 2 volumes. 1905.

ARRANGEMENT: Three columns. Middle column includes subject and catchword titles, with dates. Alphabetical arrangement. First column gives author, agency or name of Congressman sponsoring bill. Third column shows Congressional series, volume and document number, number of pages. Personal name index at end of second volume. Gives pages of entries in first column.

Would the following be answered by this work:
A. Which U.S. Government agency issued a report in 1883 about the sewage system in Paris, France?
   Yes--states name of agencies sponsoring reports and has subject approach
B. What reports did the Illinois Department of Education issue in 1891 on the subject of libraries?
   No--only federal government reports included
C. Which U.S. Government reports were printed on July 11, 1890?
   No--has no chronological approach

U.S. Supt. of Documents. Catalogue of the Public Documents of Congress and of all Departments of the Government of the U.S. 1893-1940. 25 volumes.

SCOPE: Analytical dictionary catalog. Many notes about changes in agencies. At back of each volume a list of authors or agencies. Shows what other agencies office is connected with. "Congressional Documents List" under this entry is important. Entries give: author, title, date, pagination, document number, session and volume.

The Documents Catalogue would answer which of the following:

A. Which bureau of the government issued a book by Franz Boaz in 1894?
   Yes--gives name of agencies, bureaus, etc., and has author approach

B. With which federal department is the Coast and Geodetic Survey connected (as of 1930)?
   Yes--has list of agencies, bureaus, etc. showing connections with main departments

C. Has the U.S. Government issued any literature about fleas during this period?
   Yes--has subject approach

U.S. Supt. of Documents. Monthly Catalogue of the U.S. Public Documents. 1895-

SCOPE: Almost all U.S. Government publications. Title, size, date, pagination, price, classification number (after July, 1924) and L.C. card number, if any. Key to symbols: * Sale by Supt. of Docs., + Available at issuing office, ‡ Printed for official use only, . Sent to depository libraries.

SPECIAL FEATURES: "Previews" section lists titles for pre-publication ordering.

ARRANGEMENT: Alphabetical by agency. Monthly indexes at end of each catalog of subjects and titles. Yearly index.

Would the following be found in this work:

A. Publications of the National Park Service?
   Yes--includes Department of Interior agencies

B. Publications not available for distribution?
   Yes--includes items for official use

C. Prices for publications available from the Supt. of Documents?
   Yes--gives prices

D. Government publications dealing with the Ku Klux Klan issued in 1968?
   Yes--has subject index

GOVERNMENT PUBLICATIONS AND DIRECTORIES--Review questions

Where would you find:

1. Who wrote a U.S. Government report in 1883 about the financial and agricultural condition of Cuba?
   Ames. Comprehensive Index to the Publications of the U.S.

2. What has the U.S. Government published in 1968 about how to control silverfish?
   Monthly Catalogue of the U.S. Public Documents

3. What topics did President George Washington discuss in his Annual Message to Congress in 1790?
   Poore. Descriptive Catalogue of the Government Publications of the U.S.

U.S. Supt. of Documents. Numerical Lists and Schedule of Volumes. 1933-

SCOPE: Numbers of Senate reports, House reports, Senate documents, House documents in consecutive order, indicating subject of document, serial

number and volume. "Schedule of Volumes" gives contents list of each volume of each serial number in order of numbers. Numerical lists exist for purpose of assigning correct serial numbers to all volumes of Congressional set for easier reference. Useful in period between appearance of volumes in set and Document Catalogue, usually several years behind.

Would the following be answered by this work:

A. In which volume, for a given session of Congress, Senate Report #792 is located?
   Yes--numerical listing gives volume reference
B. Who wrote a report on the Navajo Tribe in the 84th Congress, 1st session?
   No--no authors given
C. Which House documents are included in volume 16 of the 2nd session of the 84th Congress?
   Yes--"Schedule of Volumes" lists contents of each volume
D. Which serial number is assigned to a listed report?
   Yes--for each report or document a serial number is given

U.S. Supt. of Documents. Price Lists. 1898-

SCOPE: In-print lists. Each price list on different subject. Full bibliographical data. Often annotated.

Which of the following does this work include:

A. Government publications only?
   Yes--is sales catalog of government publications
B. Only those government publications of the month?
   No--includes all documents for sale regardless of date of publication
C. Cost to order a listed publication?
   Yes--gives prices

Leidy, W.P. A Popular Guide to Government Publications. 3rd ed. 1968.

SCOPE: Lists of recent, major U.S. Government and Pan American Union publications, most of which are annotated. Coverage to mid-1966. Titles chosen for wide, popular appeal. Full bibliographic information, including price. Addresses of issuing agencies for ordering.

ARRANGEMENT: Classified with subject index.

Would the following be found in this work:

A. A pamphlet on social security describing how it works?
   Yes--has publications on social security with brief annotation of contents
B. A list of publications of the National Park Service about the individual national parks and monuments?
   Yes--lists works about national parks, monuments and battlefields
C. The price of a pamphlet issued by the Public Health Service?
   Yes--gives prices

U.S. Library of Congress. Exchange and Gift Division. Monthly Checklist of State Publications. 1910-

SCOPE: Accessions list of Library of Congress of publications issued during previous five years. Addresses of agencies, prices, full bibliographic information. Periodicals listed twice yearly with December cumulation. Has special section of state library surveys, studies, manuals and statistical reports and publications of interstate organizations.

ARRANGEMENT: By state, then alphabetic by agency. Annual dictionary index.

Would the following be found in this work:
A. State publications on art exhibitions?
Yes--has subject approach through index
B. A list of federal government publications in December, 1966?
No--only state documents included
C. Full bibliographic data on the publications of U.S. Congressional documents?
No--has state publications only

GOVERNMENT PUBLICATIONS AND DIRECTORIES--Review questions

Where would you find:
1. What publications has the Library of Congress received recently from the Georgia Department of Education?
Monthly Checklist of State Publications
2. What subjects are included in the Department of Agriculture's popular booklet, Mushroom Growing in the U.S.?
Leidy. A Popular Guide to Government Publications
3. Where can one locate Senate Report #897 for the 1st session of the 86th Congress?
Numerical Lists and Schedule of Volumes

U.S. Government Organization Manual. 1935-

SCOPE: Data about government agencies. History, authority, organization, present officials. Charts. Lists some publications. Includes abolished or transferred agencies, quasi-official and selected bilateral agencies.

ARRANGEMENT: By Agency. Personal name index and general index.

Would the following be found in this work:
A. Present officials of the Atomic Energy Commission?
Yes--gives names of present officials
B. A list of all past justices of the Supreme Court?
No--only names of present officials given
C. An organizational breakdown of the Treasury Department in chart form?
Yes--has organizational charts
D. What became of the War Assets Administration?
Yes--includes information on abolished or transferred agencies
E. Which government agency Claude L. Kemp works for?
Yes--has personal name index

U.S. Congress. Official Congressional Directory. 1809-

SCOPE: Current officials. Biographical directory of congressmen; lists of state delegations with terms of service and service on committees. Directories of the capitol building, executive and judicial departments, data on international organizations and diplomatic representatives. Maps of congressional districts. Press representatives, administrative assistants and secretaries to congressmen. Personal name index.

Would the following be found in the Official Congressional Directory:

A. A list of congressmen in the 1st Congress?
   No--too early, did not begin publication until 1809
B. A list of congressional publications last year?
   No--has only directory material, no publications included
C. A list of Senate committees and their members?
   Yes--lists committee members for each committee
D. In what congressional district is Washtenaw County, Michigan?
   Yes--has maps of states divided into congressional districts

GOVERNMENT PUBLICATIONS AND DIRECTORIES--Post test

1. How is the Smithsonian Institute organized?
   U.S. Government Organization Manual
2. In what U.S. Government document may one find a bibliography of the Eskimo language published in 1887?
   Ames. Comprehensive Index to the Publications of the U.S. Government
3. What publications were put out by the U.S. Food and Drug Administration in 1967?
   Monthly Catalogue of the U.S. Public Documents
4. What did the U.S. Children's Bureau publish in 1922?
   Catalogue of the Public Documents of Congress and of all Departments of the Government of the U.S.
5. Which state publications did the Library of Congress receive in 1967 which dealt with mental hygiene?
   Monthly Checklist of State Publications
6. What serial number is assigned to each congressional report or document?
   Numerical Lists and Schedule of Volumes
7. Where can one locate a brief abstract of a U.S. Government report about the erection of a lighthouse at Thunder Bay, Michigan in 1878?
   Poore. Descriptive Catalogue of the Government Publications of the U.S.
8. What U.S. Government publications are available for sale on the subject of aging?
   Price Lists

APPENDIX B

SIMULATED REFERENCE INTERVIEWS

Biography #1

Scene: The public library in a medium-sized Indiana town. A high school senior asks for help in finding materials. "I am planning to write a paper for American history about famous people who were born in Indiana. Could you tell me where to look for that kind of information?"

1. Period. I'm most interested in people who lived in the 19th century, though I haven't decided upon any particular period yet.
2. Country. The U.S., of course, unless Indiana has seceded recently. As I said, I want people who were born in Indiana.
3. Living or dead. (same as answer #1)
4. Profession. I want people who made some important contributions to American life. It doesn't matter in what field it was.
5. Specific information. I want to read some critical biographies which might also refer me to further sources of information. Then, I think, I'll be able to decide on the scope of this paper.
6. Length. I need a lot of material.
7. Level. This information not relevant to this dialog.

Hints:

5. What specific kinds of information does he want?

3,1. Does he want famous living people, do you think?

4. Are these Indianans famous for any particular thing? Maybe he wants movie stars only.
6. Does he want extensive or brief information?

Answer hint: Which source is best for evaluative biographies of Americans, with bibliographic citations and birthplace approach?

Computer response to recommendations:

1. Slocum-- This source does not contain biographical sketches.
2. Webster's Biog. Dict.--
3. Internat'l. Who's Who-- } This work does not have critical biographies or bibliographies. Try another source.
4. Current Biog.-- This work has no approach by birthplace and includes no one before the 20th century.
5. Biog. Index--
6. EGLI-- } (same as #1)
7. DAB-- Yes. This work contains evaluative biographies with bibliographies, and has an approach by place of birth.
8. NCAB-- It has no approach by place of birth nor any bibliographies.
9. Contemp. Authors-- (same as #4)
10. DNB-- Only British persons are included.
11. W W in America--
12. W was W in America--
13. W W-- } This work does not have critical biographies or bibliographies.
14. W was W--

Keywords: Biography #1.

1.

period	present	recent	century
when	year	date	now
era	contemporary	early	ago
time	modern	current	

2.	where	country	United States	nation
	place	loca	America	U. S.
	area	U.S.	part	
3.	living	dead	born	live
	alive	die	deceased	
4.	profession	work	activit	person
	field	job	famous	polit
	occupation	business	people	
5.	special	find	tell	critic
	specific	sort	aspect	reference
	particul	kind	subject	bibliog
	purpose	type	topic	eval
	know	look	biog	describe
	learn	seek	paper	need
6.	length	short	much	many
	detail	brief	extens	few
	long	lot	page	large
7.	level	easy	simple	
	scholar	general		
	popular	difficult		

Biography #2

Scene: A small rural library. An elderly lady asks for help. "I want to order a book about John F. Kennedy from the city bookstore. Can you help me locate a title?"

1. Period. He just died in 1963, don't you remember?
2. Country. He was an American.
3. Living or dead. (same as answer #1)
4. Profession. He was a U.S. President.
5. Specific information. What I want is a recent biography of Kennedy, in a hard cover edition, published in the last year or so. The author does not matter nor does the price.
6. Length. I want a full-length book about him.
7. Level. It's for my grandson for his 11th birthday.

Hints:

5. You need to know what kind of book she has in mind.
7. Maybe the book is not for her. For whom do you think she's getting it?
6. How long a book does she want?

Answer hint: Where can you look up lists of recently published biographies by subject?

Computer response to recommendations:

1. Slocum-- Slocum does not have individual biographies.
2. Webster's Biog. Dict.--
3. Internat'l Who's Who-- } This source does not list books about a person.

4. Current Biog.-- Bibliography would not be recent enough, since Kennedy died in 1963.
5. Biog. Index-- Correct. This is a good place to find recently published material about persons. It indicates both juvenile editions and illustrations.
6. EGLI-- This work does not have book titles.
7. DAB-- This work includes only persons who died before 1940.
8. NCAB-- (same as #2)
9. Contemp. Authors-- (same as #4)
10. DNB-- Only British persons are included.
11. W W in America.--
12. W was W in America.-- } This source does not list books about a person.
13. W W--
14. W was W--

Keywords: Biography #2.

1.	period	year	current	
	when	ago	late	
	time	date	now	
2.	country	America	U. S.	
	where	U.S.		
	nation	United States		
3.	alive	born	live	
	dead	living		
	die	deceased		
4.	profession	occupation	job	
	field	work	senator	
	president	famous	politician	
5.	special	kind	life	pay
	particul	type	career	cover
	know	look	aspect	critic
	learn	seek	fact	histor
	find	tell	spend	stor
	sort	specific	cost	author
	paper	subject	price	buy
	hardcover	topic	expens	pict
	edition	biog	scope	illus
	new	recent	contemporary	
6.	length	short	much	page
	long	brief	extens	
	detail	lot	concise	
7.	level	girl	old	teenager
	child	adult	college	student
	juvenile	grown up	for whom	scholar
	high	elementary	for you	easy
	boy	grade	yourself	popular
	son	general	husband	
	daughter	age	young	

Biography #3

Scene: One day a junior high boy comes to the reference desk of a small public library. He asks, "Do you have any books on art?"

1. Period. I need to find out something about a contemporary artist; one who is still living.
2. Country. It really doesn't matter what country he's from or what his nationality is.
3. Living or dead. (same as #1)
4. Profession. Famous for? Well, I really don't know about any artists. But that sculpture in the Civic Center is kind of neat. Maybe I'll talk about Mr. Colter or Calder or whatever the name of the man is who designed that.
5. Specific information. We're studying art in school and I have to read an article about the life and career of some artist.
6. Length. I need enough information to give a five-minute oral report in my class.
7. Level. He's a junior high boy, remember?

Hints:

5. You had better ask what kind of material he wants.
1. Don't you think it's important to discover the time period he's interested in?
6. It would be helpful to know how much information the boy needs.
4. Perhaps you should discover which artist he's interested in.

Answer hint: Where is the best place to find articles about people currently in the news?

Computer response to recommendations:

1. Slocum-- Slocum has no biographical sketches.
2. Webster's Biog. Dict.--
3. Internat'l Who's Who-- } This source has only brief information. There is not enough material for a five-minute talk.
4. Current Biog.----A very good choice for biographies of people in the news.
5. Biog. Index--
6. EGLI-- } This work only cites references. It has no biographical sketches
7. DAB-- This work has no contemporary persons. It includes Americans who died prior to 1940.
8. NCAB-- Perhaps. But it covers leaders of business and industry better than artists. There is a better source for biographies of well-known contemporary persons.
9. Contemp. Authors-- Only writers are included in this work.
10. DNB-- This work has no contemporary persons. It includes British persons who died prior to 1950.
11. W W in America--
12. W was W in America--
13. W W--
14. W was W-- } (same as #2)

Keywords: Biography #3.

1.	period	time	histor	modern
	when	year	contemp	middle ages
	era	ago	ancient	medieval

	renaiss	recent	early	
	new	current	late	
	date	century	now	
2.	country	America	United States	
	where	loca	Europe	
	area	place	part	
	nation	U.S.	U. S.	
3.	alive	born	deceased	
	dead	living	live	
	die			
4.	profession	sculptor	person	
	field	artist	people	
	famous	painter		
5.	special	find	specific	critic
	particul	sort	aspect	histor
	reason	kind	topic	art
	purpose	type	subject	illus
	use	look	cover	pict
	know	seek	scope	
	learn	tell		
6.	length	brief	concise	
	long	lot	few	
	detail	much	little	
	short	extens		
7.	level	grown up	for you	easy
	child	elementary	yourself	popular
	juvenile	age	young	general
	high	old	teen	specialist
	adult	for whom	scholar	

Biography #4

Scene: The high school librarian is asked for help by a senior girl. "We have to give oral reports in my humanities class, and I'm going to talk about Michelangelo and his times. Could you help me?"

1. Period. My talk is about the Italian Renaissance during the 15th and 16th centuries.
2. Country. Well, Michelangelo was Italian and I'm also including other important Italians of the Renaissance.
3. Living or dead. Don't you think most Renaissance people are probably dead by now?
4. Profession. Michelangelo was a pretty famous artist, but I'm also going to talk about a lot of other people, too.
5. Specific information. I just want to find out how to pronounce all those Italian names correctly.
6. Length. I don't need to read any more biographical stuff since my report is nearly finished.

7. Level. (not relevant to this dialog)

Hints:
5. Try to find the specific thing she is looking for. What kind of information does she want?
1. If you don't know who Michelangelo was, you'd better find out when he flourished.
2. Where did Michelangelo live anyway?

Answer hint: Which work of universal biography is best for name pronunciations?

Computer response to recommendations:
1. Slocum-- Slocum has no biographies or pronunciation.
2. Webster's Biog. Dict.-- Yes. Webster's Biographical Dictionary is a good place to find name pronunciations for persons of all times and places.
3. Internat'l Who's Who-- This work has living persons only and no pronunciation.
4. Current Biog.--This work has only twentieth century names.
5. Biog. Index--
6. EGLI-- } This work only cites references. It has no pronunciation.
7. DAB--
8. NCAB-- } This source covers Americans only. Has no pronunciation.
9. Contemp.Authors-- (same as #4)
10. DNB-- Has British persons only. No pronunciation.
11. W W in America-- Living persons only and no pronunciation.
12. W was W in America-- (same as #7)
13. W W-- (same as #11)
14. W was W-- Has coverage back to 1897 only and has no pronunciation.

Keywords: Biography #4.

1.	period	ago	date	middle
	when	contemp	recent	medieval
	era	modern	current	
	time	renaissance	century	
	year	new		
2.	country	nation	place	
	where	loca	Europ	
	area	Ital	U	
3.	alive	born	deceased	
	dead	living	live	
	die			
4.	profession	famous	paint	
	field	activit	people	
	occupation	sculpt	person	
	work	artist		

5.	special	sort	approach	aspect
	particul	kind	tell	fact
	know	type	specific	paper
	learn	look	life	report
	find	seek	career	about
	subject	cover	critic	illus
	topic	scope	histor	pict
	biog			
6.	length	brief	concise	
	long	lot	several	
	detail	much	large	
	short	extens	little	
7.	level	scholar	popular	
	simple	general		
	elementary	easy		

Biography #5

Scene: A junior high school girl tells the reference librarian in the public library: "I don't know how to look this up, but I want to find out something about Ravi Shankar."

1. Period. He is a very famous contemporary musician who is still living.
2. Country. He is from India and plays a sitar.
3. Living or dead. (same as #1)
4. Profession. (same as #1)
5. Specific information. I'd like to learn something about his life and career. I also want to find out his address and see a picture of him.
6. Length. I want to read a nice, interesting article about his life and career--not just some brief facts.
7. Level. (not relevant to this dialog)

Hints:

5. What kind of information about him is she looking for?
1. You need to know when he lived, don't you?
2. It is important to find out where he is from.
6. How much information about him does she want?

Answer hint: Where can you find photographs and chatty articles about famous living people?

Computer response to recommendations:

1. Slocum--Has no biographical sketches.
2. Webster's Biog. Dict.--
3. Internat'l Who s Who-- } There are no photographs in this source and only brief facts are given.
4. Current Biog.-- Good choice. It has just what she wants--photographs, addresses, and interesting articles about contemporary people.
5. Biog. Index--
6. EGLI-- } This work only cites references. It has no biographical sketches.
7. DAB-- This work has sketches of dead persons only.
8. NCAB-- NCAB has American coverage only.

9. Contemp. Authors-- Covers writers only.
10. DNB-- This work has sketches of dead persons only.
11. W W in America-- (same as #2)
12. W was W in America-- (same as #10)
13. W W-- (same as #2)
14. W was W-- (same as #10)

Keywords: Biography #5.

1.	period	ago	recent	
	when	contemp	current	
	time	modern	century	
	year	date	now	
2.	country	place	India	part
	where	U.S.	Europe	U. S.
	nation	United States	Asia	
	loca	America	area	
3.	alive	born	deceased	
	dead	living	live	
	die			
4.	profession	job	known	Ravi
	field	business	activit	Shankar
	occupation	famous	music	
	work	sitar	artist	
5.	special	find	specific	report
	particul	sort	life	biog
	reason	kind	career	scope
	purpose	type	aspect	cover
	use	look	paper	critic
	know	seek	subject	
	learn	tell	topic	
6.	length	brief	concise	
	long	lot	page	
	detail	much	few	
	short	extens		
7.	level	scholar		
	elementary	popular		
	general	simple		

Biography #6

Scene: A young man asks the librarian in a large city library: "Do you have anything about the inventor of the arctic overshoe? I'm not sure what his name was, but I'd like to read something about him."

Period. I think it was at least 100 years ago.
Country. He was an American.

3. Living or dead. He must be dead by now.
4. Profession. He was an inventor and businessman.
5. Specific information. I want to read a biographical sketch about him. I really do not care how long the sketch is.
6. Length. (same as #5)
7. Level. You really don't need this information.

Hints:
2. Is it important to find out where this momentous event took place?
5. What kind of information does he want?
1. When was the arctic overshoe invented, I wonder?

Answer hint: Since you don't know the man's name, you need a subject approach. Also, which work is most likely to include an obscure inventor?

Computer response to recommendations:
1. Slocum-- This work has no biographical sketches.
2. Webster's Biog. Dict.-- Has no subject approach.
3. Internat'l Who's Who--
4. Current Biography-- } This source has living persons only.
5. Biog. Index--
6. EGLI-- } Has no biographical sketches.
7. DAB-- Perhaps. But there is a better source for obscure persons in business and industry.
8. NCAB-- Yes. The NCAB is the best place to find information on small subjects and persons in American business and industry.
9. Contemp. Authors-- (same as #4)
10. DNB-- Has British biographies only.
11. W W in America-- Living persons only
12. W was W in America-- As the Young man does not know the man's name, a subject approach is necessary and this work has name approach only.
13. W W-- (same as #11)
14. W was W-- Has no subject approach and lists mainly British persons.

Keywords: Biography #6.

1.	period	ago	new	late
	when	event	date	century
	era	histor	recent	
	time	contemp	current	
	year	modern	early	
2.	country	America	Engl	
	where	loca	U. S.	
	area	U.S.		
	place	United States		
	nation	Europe		
3.	alive	born	live	
	dead	living		
	die	deceased		
4.	profession	work	famous	invent
	field	job	activit	career
	occupation	business		

5.	special	know	type	specific
	particul	learn	look	life
	reason	find	seek	aspect
	purpose	sort	approach	fact
	use	kind	tell	paper
	report	topic	scope	cover
	subject	biog		
6.	length	short	much	page
	long	brief	extens	
	detail	lot	concise	
7.	level	simple	easy	popular
	elementary	scholar	general	

Biography #7

Scene: A graduate student comes to the reference desk in a large university library. He asks: "Where is the best place to look for some information I need for my thesis?"

1. Period. I have no specific dates in mind yet, although I'll probably narrow it down to a special period eventually.
2. Country. My thesis is going to be on Dutch and Flemish authors of the Netherlands.
3. Living or dead. It really doesn't matter whether the writers are still alive or not. I want writers from all periods.
4. Profession. I am interested in writers who wrote anonymously or under other names.
5. Specific information. I am trying to identify writers who wrote under disguised names, anonyms or pseudonyms. Do you know of any works which might list biographical dictionaries? I do not want biographical sketches.
6. Length. (same as #5)
7. Level. (This information not relevent to this situation)

Hints:

5. Is he interested in specific writers or in more general listings?
2. Which country interests him most?

Answer hint: Where can one find dictionaries of anonyms and pseudonyms listed by place?

Computer response to recommendations:

1. Slocum-- Very good. Slocum lists dictionaries of anonyms and pseudonyms by country.
2. Webster's Biog. Dict.--
3. Internat'l Who's Who--
4. Current Biog.--

} This work contains biographical sketches of individual persons. It does not list collective biographies.

5. Biog. Index-- This work has personal name entries only. Has no biographical dictionaries.
6. BSLI-- This work lists only essays and articles found in collections. It has no biographical dictionaries.

7. DAB--
8. NCAB--
9. Contemp. Authors--
10. DNB--
11. W W in America--
12. W was W in America--
13. W W
14. W was W--

This work contains biographical sketches of individual persons. It does not list collective biographies.

Keywords: Biography #7.

1.	period	ago	recent	
	when	contemp	current	
	era	modern	early	
	time	new	late	
	year	date	century	
2.	country	nation	loca	
	where	America	Europ	
	area	U.S.	part	
	place	United States	U. S.	
3.	alive	born	live	
	dead	living		
	die	deceased		
4.	profession	job	writ	
	field	business	person	
	occupation	famous	people	
	work	activit		
5.	special	know	type	specific
	particul	learn	look	aspect
	reason	find	seek	fact
	purpose	sort	approach	subject
	data	kind	tell	topic
	dicti	scope	critic	thesis
	biog	cover	histor	about
	general	list		
6.	length	short	much	
	long	brief	extens	
	detail	lot	concise	
7.	level	scholar	popular	
	elem	easy		

Bibliography #1

Scene: A high school girl seeks assistance from the public library's reference expert. "Could you please tell me where to look for information about Stephen Crane, the American writer?"

1. Period. Crane died in 1900, but I want books that are available now which I can use in the library or maybe buy in the bookstore in paperback.
2. Subject. I need some help in deciding which books to read for my report about Crane in my English class.
3. Place. It doesn't matter where the books are published.
4. Author. I'd like titles of books written by Crane himself, as well as some critical studies by other writers about his life and works. I have no specific titles in mind.
5. Specific information. I'd like to read a brief biography and evaluation of Crane and find out what he has written. I also want to get the names of some good books that have been written about him.
6. Length. I guess a couple of good critical books and two or three by Crane himself would be enough.
7. Language. The books had better be in English. I don't read any other languages.
8. Level. I don't want anything too scholarly, please. A list of books for the average adult reader would be fine.

Hints:

5. You'd better ask her what kind of information she's looking for?
1. Is she looking for recent information?

Answer hint: Can you think of a best books list which also gives evaluative and biographical information about writers?

Computer response to recommendations:

1. Besterman--
2. Bib. Index--

} This work contains lists of bibliographies only.

3. Amer. Book Prices--This source lists works sold at auction only.

4. C.B.I.--
5. B.I.P.--
6. S.G.B.I.P.--
7. P.B.I.P.--

} This work does not have evaluative or biographical information about writers.

8. Guide to Micro.--
9. Subj. Guide to Micro.--
10. Nat. Reg.--

} This work gives information about titles available in microform only.

11. Diss. Abst.--Contains U.S. doctoral theses only.
12. Std. Cat.--Does not give biographical facts about authors and contains only non-fiction titles.
13. Senior H.S. Cat.--Does not give biographical information about writers.
14. Children's Cat.--Contains titles suitable for the elementary grades. Biographical information about writers is not given.
15. Fic. Cat.--Does not contain biographical information or works of criticism about writers.
16. Books for Col. Libs.--
17. Jr. Coll. Lib. Collect.--

} Only lists of titles are included. It has no evaluative or biographical information.

18. Reader's Adviser--Correct. Reader's Adviser has biographical and evaluative information about writers. It gives advice to general readers about the best books available in hard cover and paperback which have been written about and by various authors.

19. Hal. & Laing--This work pertains only to pseudonymous and anonymous writings.
20. N.U.C.--
21. B.M.Cat.-- } This catalog has no evaluative or biographical annotations about authors or their works.

Keywords: Bibliography #1.

1.	period	recent	year
	now	current	date
	when	modern	liv
	imprint	contemporary	aliv
	available	new	dead
2.	subject	paper	purpose
	course	topic	
	class	theme	
	report		
3.	place	publish	
	where	country	
	U.S.	U. S.	
	America		
	United States		
4.	author	title	
	writ	person	
	wrote		
	criti		
5.	kind	specific	summar
	look	find	learn
	biog	type	reference
	list	need	aspect
	biblio	citation	special
	sort	annot	particular
	evaluat		describe
6.	length	lot	brief
	much	long	scope
	many	extens	
7.	language		
	English		
	foreign		
	transl		
8.	level	popular	difficult
	scholarly	average	techn
	general	simpl	adult
	layman	easy	grown
		for you	young
		for who	old
		juvenile	grade
		child	age

Bibliography #2

Scene: A small public library. The telephone rings and, as the librarian answers it, a very agitated man replies: "Hello. I really have a problem. I don't think you can help me, but you're my last resort." Can you help this man?

1. Period. The book is quite recent. I think it came out in the last couple of years.
2. Subject. It's an illustrated art history book that's quite expensive as I remember--about $25 or $30.
3. Place. Well, the book is about Mexico, but an American firm published it.
4. Author. I can't remember the author or title of the book, but I think I would recognize it if I saw it.
5. Specific information. My wife saw a book that she said she wanted. Do you think you could tell me the title, exact price and publisher so I could order it for her birthday?
6. Length.--This information not relevant
7. Language. It's a book written in English.
8. Level. The book is written at an adult level, though I suppose children might enjoy the pictures.

Hints:

5. You need to get more information about his problem. What does he want to know?

1. Does he want recent material?
2. Is there any special subject he's looking for?
3. Are foreign publications all right?

Answer hint: Where can you locate in-print titles of American publishers by subject?

Computer responses to recommendations:

1. Besterman--
2. Bib. Index-- } This source lists bibliographies of bibliography only.
3. Amer. B.P.C.--Only works sold at auction covered in this reference work.
4. C.B.I.--Perhaps. But you may have to look through several volumes to find it. There is a better place to find in-print titles by subject.
5. B.I.P.--Has author and title approach only.
6. Subj. Guide to B.I.P.--Yes, indeed. This is the best source for locating in-print titles of American publishers by subject, with prices and publishers' addresses for ordering.
7. P.B.I.P.--This work covers paperbacks only.
8. Guide to Micro.--
9. Subj. Guide to Micro.-- } This work gives information about titles
10. Nat. Register-- } available on microforms only.
11. Diss. Abst.--Only U.S. doctoral theses are included.
12. Std. Cat.-- } This reference work has selective listings. It
13. Sr. H.S. Cat.-- } would not include all titles available.
14. Children's Cat.--Only titles recommended for the elementary school level are included.
15. Fiction Cat.--Contains only selected fiction titles.
16. Books for Col. Libs.--This work covers selected pre-1964 titles and has no prices or publishers' addresses.
17. Jr. Col. Lib. Coll.--This tool has selected listings only. It does not give prices or publishers' addresses.

18. Reader's Adviser--(same answer as #12)
19. Halkett & Laing--Only pre-1950 anonymous and pseudonymous works are listed in Halkett & Laing.
20. N.U.C.--
21. B.M. Cat.-- } This catalog does not give prices or publishers' addresses.

Keywords: Bibliography #2.

1.	period	year	in print
	recent	date	modern
	current	new	contem
	when	ago	
2.	subject	book	
	topic	content	
	about	illust	
	deal		
3.	place	America	U.S.
	country	foreign	United States
	where	loca	publish
		area	U. S.
4.	author	name	
	wrote	person	
	writ		
	title		
5.	specific	matter	
	tell	mind	
	sort	need	
	kind	find	
	problem	buy	
	help	type	
	look	purchase	
	want		
6.	length	extens	much
	long		lot
7.	language		
	English		
	translation		
	Spanish		
8.	level	child	
	adult	hard	
	difficult	scholarly	
	general	simpl	
	easy		

Bibliography #3

Scene: A ninth grade student asks the reference librarian in a small public library for help. "I want to read some good books. Could you give me some advice about this? Try to help her.

1. Period. I want to read about the eighteenth century. Either recently published or good older books will be okay.
2. Subject. I'm interested in books about the Revolutionary War to read just for fun, not any school assignment.
3. Place. I want books about the United States, but I don't care where they were published.
4. Author. I have no special authors or persons in mind.
5. Specific information. I'd like you to tell me the titles of some good historical novels I could borrow from the library. Some that are highly recommended.
6. Length. About three or four titles would be enough. I don't care how long they are.
7. Language. The books have to be in English.
8. Level. Don't give me any children's books. After all, I'm fourteen.

Hints:

5. What sort of books do you think she wants?
7. Can she read any other languages besides English?
2. Is there any special subject she's interested in?
3. Does she want books about any particular country or place?

Answer hint: There's a very good place to find lists of recommended fiction by subject. What is it?

Computer responses to recommendations:

1. Besterman--
2. Bib. Index-- } This work lists bibliographies of bibliography only.
3. Amer. B.P.C.--This source lists works sold at auction only.
4. C.B.I.--This reference tool has listings only. It does not indicate best books on subjects.
5. B.I.P.--Books in Print has no subject approach and does not indicate best books
6. S.G.B.I.P.--
7. P.B.I.P.-- } (same answer as #4)
8. Guide to Micro.--
9. Subj. Guide to Micro.--
10. Nat. Reg.-- } This work gives information about titles available on microforms only.
11. Dis. Abst.--Only abstracts of U.S. doctoral dissertations are found in Dissertation Abstracts.
12. Standard Catalog----Non-fiction titles only are included in the Standard Catalog.
13. Sr. H.S. Lib. Cat.--This is a good source, but the public library probably would not have it. Try another reference tool.
14. Children's Cat.--Children's Catalog has elementary level titles only.
15. Fiction Cat.--Good choice. Fiction Catalog lists recommended adult fiction by subject and indicates suitability for teenagers.
16. Books for Col. Libs--This source lists fiction by author, not by subject.
17. Jr. Col. Lib. Coll.--According to L.C. classification system.
18. Reader's Adviser--There is no approach to fiction by subject, only by author.

19. Halkett & Laing--Only anonymous and pseudonymous English literature is included in Halkett & Laing.
20. N.U.C.--
21. B.M.Cat.-- } This catalog does not indicate which titles are the best on any subject.

Keywords: Bibliography #3.

1.	period	recent	ago
	time	current	
	year	modern	
	century	when	
	era	old	
		date	
		new	
2.	subject	deal	aspect
	event	course	
	happening	class	
	occur	school	
	topic	pleasure	
	about	assignment	
3.	place	loca	U. S.
	where	part	
	country	revolution	
	U.S.	United States	
	America	area	
	Russia		
	France		
	Spain		
	Spanish		
4.	author	person	written
	writer	novelist	American
5.	specific	non-fiction	illus
	kind	fiction	purchase
	sort	histor	borrow
	look	factual	price
	tell	review	cost
	seek	special	annot
	novel	type	buy
	title	need	
	name	picture	
6.	length	long	
	many	lot	
	much	few	
7.	language		
	English		
8.	level	popular	child
	easy	scholar	teenage
	hard	simple	
	adult	juvenile	

Bibliography #4

Scene: A middle-aged woman requests help from the reference librarian in the public library. "I want to buy a book for the son of one of my friends. I wonder whether you could suggest something suitable."

1. Period. I'd like an up-to-date edition.
2. Subject. I thought I'd get him a book on synonyms.
3. Place. It doesn't matter where it's published.
4. Author. I'm not looking for any special author.
5. Specific information. I would like to find out the title and price of the most highly recommended reference work in this field--something under $20.
6. Length.--Not relevant.
7. Language. I'm only interested in English language books.
8. Level. My friend's son is a college student.

Hints:

2. Is there any special subject she is interested in?
5. What specifically does she want to know?
8. How old is the boy?

Answer hint: Which source indicates the most highly recommended titles among a list of non-fiction adult books in various subject categories?

Computer response to recommendations:

1. Besterman--
2. Bib. Index-- } This work contains lists of bibliographies only.
3. Amer. B.P.C.--This source lists works sold at auction only.
4. C.B.I.--
5. B.I.P.-- } This work does not have evaluations of books listed.
6. S.G.B.I.P.--
7. P.B.I.P.--
8. Guide to Micro.--
9. Subj. Guide to Micro.-- } This source lists titles available on microforms only.
10. Nat. Reg.--
11. Diss. Absts.--Dissertation Abstracts contains U.S. doctoral theses only.
12. Std. Cat.--Correct. Standard Catalog contains lists of non-fiction titles by subject. It states prices and indicates which titles are most highly recommended.
13. Sr. H.S. Lib. Cat.--This catalog lists best books by subject but does not indicate the most highly recommended titles in each category.
14. Children's Cat.--Children's Catalog contains works suitable in the elementary grades only.
15. Fiction Cat.--Non-fiction works are excluded from the Fiction Catalog.
16. Books for Col. Libs.-- } This work does not give prices nor indicate
17. Jr. Col. Lib. Coll.-- } which titles are recommended most highly.
18. Reader's Adviser--Perhaps. Reader's Adviser gives prices and advice about arrangement and content of reference works. But there is another source which indicates the most highly recommended titles among all those listed.
19. Halkett & Laing--Halkett & Laing contains only anonymous and pseudonymous English literature.

20. N.U.C.--
21. B.M. Cat.-- } This catalog gives no prices or evaluations.

Keywords: Bibliography #4.

1.	period	older	now
	when	date	
	recent	current	
	new	year	
	standard		
2.	subject	about	interest
	topic	deal	class
	field	major	course
	area		
3.	place	publish	
	where	U. S.	
	country		
	America		
	U.S.		
	United States		
4.	author	wrote	editor
	writ		
5.	specific	title	type
	kind	cost	pay
	sort	price	
	look	much	
	tell	spend	
	seek	expensive	
	find	know	
6.	length	few	
	many	extens	
	lot		
7.	language		
	English		
	translat		
8.	level	student	adult
	age	elementary	grown
	old	high school	
	grade	junior high	
	college	secondary	
	university	child	

Bibliography #5

Scene: An older man seeks out the reference librarian in the public library. He tells her, "I want to get a list of those colored books I remember reading when I was a kid. Do you know about them?"

1. Period. The books were originally published about eighty years ago, but I want to see which ones might be available in the bookstores right now.
2. Subject. They were fairy tale books, each one had a different color in the title--like the Red Fairy Tale Book, Green Fairy Tale Book, etc.
3. Place. I guess I'd like American editions of them.
4. Author. I believe Andrew Lang wrote them.
5. Specific information. Could you tell me which hard cover and paperback editions are in print and how much they cost? I want to buy some of them.
6. Length. I want to get information about each of them, if I can.
7. Language. They have to be in English.
8. Level. I want to send them to my young grandson.

Hints:

5. What does he want to find out about these books?
4. See whether he remembers who wrote these books?
3. Does it matter where the books were published?

Answer hint: There is a very good place to look for in-print listings by author of books published in America. Do you know it?

Computer responses to recommendations:

1. Besterman--
2. Bib. Index-- } This work contains lists of bibliographies.
3. Amer. B.P.C.--This source lists works sold at auction only.
4. C.B.I.--C.B.I. does not list paperbacks.
5. B.I.P.--Yes, that's right. B.I.P. has author listings, with prices, of hard cover and paperback books available from American publishers.
6. S.G.B.I.P.--This work does list fairy tale collections under subject. But where would you look for an author approach?
7. P.B.I.P.--Hard cover editions are not listed in this source.
8. Guide to Micro.--
9. Sugj. Guide to Micro.-- } This work gives information about titles available in microform only.
10. Nat. Reg.--
11. Diss. Abstr.--Dissertation Abstracts contains U.S. doctoral theses only.
12. Std. Cat.--
13. Sr. H.S. Cat.--
14. Children's Cat.-- } This work has selective listings. It would not include all available titles or editions.
15. Fiction Cat.--
16. Books for Col. Libs.--
17. Jr. Col. Lib. Coll.--
18. Reader's Adviser--
19. Halkett & Laing--Only pre-1950 anonymous and pseudonymous works are listed in this source.
20. N.U.C.-- } This catalog does not indicate price or whether a
21. B.M. Cat.-- } title is still in print.

Keywords: Bibliography #5.

1.	period	recent	original
	when	in print	
	year	date	
	century	new	
	ago	now	
	available	modern	
	current	contemporary	
2.	subject	deal	histor
	topic	fairy tale	factual
	field	novel	title
	area	fiction	color
	about	non-fiction	
3.	place	publish	
	country	where	
	U.S.	U. S.	
	America		
	United States		
4.	author	wrote	
	writ	person	
5.	specific	look	spend
	find	seek	pay
	kind	hard cover	illus
	sort	paperback	pict
	tell	price	purchase
		cost	borrow
		buy	type
6.	length	each	
	much		
	many		
	all		
7.	language		
	English		
	foreign		
	translat		
8.	level	young	
	child	age	
	adult	who	
	juvenile	teen	

Bibliography #6

Scene: A college senior approaches the university's reference librarian and asks this question: "Where is a good place to look for material for my senior honors paper? I just don't know where to begin my search." How would you reply?

1. Period. I'm writing about the Miocene period and I want material which has appeared since 1965.
2. Subject. My honors topic is in the field of paleontology, but I'm concentrating on only one geologic era.
3. Place. I haven't decided yet which part of the world I will write about. Also, it doesn't matter in which country the material has been published.
4. Author. I'm not looking for any particular author or title.
5. Specific information. Do you know of any lists of bibliographies on my subject which have appeared in periodicals?
6. Length. I'd like to see as much material as possible so I could then decide what might be relevant for my paper.
7. Language. Works in German, French or Russian are okay. I know these languages fairly well.
8. Level. I want to find out about some studies that may have been reported in scholarly journals.

Hints:

5. What kind of material does she need? You'd better find out.
1. Are older standard works all right?
8. Will popularized materials be acceptable?
7. Must the information be in English?

Answer hint: Do you know where to find subject listings of bibliographies in all languages which appeared in recent scholarly journals?

Computer response to recommendations:

1. Besterman--Coverage of bibliographies goes through 1963 only in Besterman, and it does not cover bibliographies in periodicals.
2. Bib. Index--Correct. Bibliographic Index includes bibliographies from periodicals in English and foreign languages. Listings are by subject and include scholarly works.
3. Amer. B.P.C.--This source lists works sold at auction only.
4. C.B.I.--
5. B.I.P.--
6. S.G.B.I.P.--
7. P.B.I.P.--

   } This source lists book titles only. Lists of bibliographies from periodicals would not be covered.

8. Guide to Micro.--
9. Subj. Guide to Micro.--
10. Nat. Reg.--

    } This work gives information about titles available in microform only.

11. Diss. Abstr.--Only U.S. doctoral theses are listed in this work.
12. Std. Cat.--
13. Sr. H.S. Cat.--
14. Children's Cat.--
15. Fiction Cat.--
16. Books for Col. Libs.--
17. Jr. Col. Lib. Coll.--
18. Reader's Adviser--

    } This work does not list bibliographies from periodicals.

3

19. Halkett & Laing--Only anonymous and pseudonymous English literature is included in Halkett & Laing.
20. N.U.C.--
21. B.M. Cat.-- } This catalog does not list bibliographies from periodicals.

Keywords: Bibliography #6.

1.	period	time	new
	when	ago	old
	year	recent	century
	date	current	age
	epoch	modern	
	era	contemporary	
2.	subject	deal	
	topic		
	about		
	field		
3.	place	America	spot
	where	U.S.	publish
	country	foreign	United States
	part	local	U. S.
	area	region	
4.	author	wrote	
	writ		
	scholar		
5.	specific	seek	biblio
	kind	list	explain
	sort	interest	title
	tell	name	periodical
	look	book	magazine
		find	type
		journal	particular
		serial	describe
6.	length	many	
	much	long	
	lot		
	few		
7.	Language		
	English		
8.	level	simple	
	scholarly	research	
	technical	stud	
	scientific	original	
	popular		

Bibliography #7

Scene: An English instructor asks you, the reference librarian, whether the university library might have some information tucked away somewhere which would answer a question for him. Can you find out what he has in mind?

1. Period. I think the work appeared in 1965 or so.
2. Subject. It concerns the theatre and is a comparative study of Moliere and Ionesco, the French playwrights.
3. Place. It was written at Louisiana State University. I don't think it was ever published commercially anywhere.
4. Author. I don't remember the author, but I think the title was something about the comic in Moliere's and Ionesco's theatre.
5. Specific information. Someone told me about a study which seems pertinent to my own interests. If it is, I'd like to order a copy of it--that is, if it's not too expensive.
6. Length. This information is not relevant.
7. Language. It's written in English.
8. Level. I want to look up a summary of a PhD. dissertation which I may want to read.

Hints:

8. Does he want something scholarly or for general readers?
3. You should find out whether or not this is a foreign work.
5. What sort of information does he want?
2. What subject interests him?
1. How recent is the information?

Answer hint: What source has summaries of U. S. doctoral theses with subject approach and prices given for ordering copies?

Computer response to recommendations:

1. Besterman--
2. Bib. Index--

} This work contains lists of bibliographies only.

3. Amer. B.P.C.--This source lists books sold at auction only.
4. C.B.I.--Only published books are included in C.B.I. It has no summaries.

5. B.I.P.--
6. S.G.P.I.P.--

} This work contains only in-print trade books. No annotations are given.

7. P.B.I.P.--Only works available in paperback are listed in Paperbound Books in Print. No summaries are given.

8. Guide to Micro.--
9. S.G. to Micro.--

} This work excludes dissertations and has no annotations.

10. Nat. Reg.--This work gives locations of foreign doctoral theses only and has no summaries of contents.
11. Diss. Abstr.--Very good choice. Dissertation Abstracts contains summaries of U.S. doctoral dissertations. It has a subject approach and indicates the cost of a Xeroxed copy.

12. Standard Cat.--
13. Senior H.S. Lib. Cat.--
14. Children's Cat.--
15. Fic. Cat.--

} This work does not contain theses or dissertations. Only published works are included.

16. Books for Col. Libs.--
17. Jr. Col. Lib. Coll.--

} This work has no annotations or unpublished titles.

18. Reader's Adviser--(same as #12)

19. Halkett & Laing--Halkett & Laing contains only anonymous and pseudonymous English literature.
20. N.U.C.--
21. B.M. Cat.-- } This catalog has no abstracts and does not indicate prices.

Keywords: Bibliography #7.

1.	period	current	
	when	new	
	time	ago	
	date	contemporary	
	year	century	
	recent		
2.	subject	about	
	topic	field	
	theme	deal	
	study	interest	
3.	place	France	foreign
	country	Canada	U. S.
	where	Europe	
	U.S.	loca	
	America	publish	
	United States		
4.	author	title	
	writ		
	wrote		
5.	specific	find	seek
	kind	question	search
	sort	problem	know
	tell	explain	learn
	look	mean	type
	mind		
6.	length	extens	
	lot	brief	
	much	lot	
7.	language		
	English		
8.	level	popular	
	thesis	book	
	dissertation	article	
	scholarly	essay	
	general		

Bibliography #8

Scene: A college student wants some information about a title. As the university reference librarian, see whether you can help him.

1. Period. The original paper appeared in 1865.
2. Subject. The work was about garden peas and heredity.
3. Place. I guess it was written in Austria, but I don't know where it was published.
4. Author. Gregor Mendel was the author.
5. Specific information. I want to verify the exact title of the original publication.
6. Length. This information is not relevant.
7. Language. I want the title in German.
8. Level. It's a scientific, scholarly work.

Hints:

5. What does he want to know about the title?
1. When was the work published?
4. Does he know who wrote it?
7. Is he looking for the correct English translation of the title?
2. What was this work about anyway?

Answer hint: Where is a good place to verify bibliographic information about early publications in foreign languages?

Computer response to recommendations:

1. Besterman--
2. Bib. Index--

} Only lists of bibliographies are found in this work.

3. Amer. Book P. C.--This source lists works sold at auction only.
4. C.B.I.--C.B.I. covers English language titles since 1898 only.

5. B.I.P.--
6. S.G.B.I.P.--
7. P.B.I.P.--

} This work covers titles which are still in print only.

8. Guide to Micro.--
9. Subj. Guide to Micro.--
10. Nat. Reg.--

} This source lists works available in microform only.

11. Diss. Abstr.--Only U.S. doctoral theses are listed in this source.
12. Standard Cat.--Only English language titles are included in the Standard Catalog.

13. Senior H.S. Lib. Cat.--
14. Children's Cat.--

} This work does not include scholarly studies in German.

15. Fic. Cat.--Only fiction titles are found in the Fiction Catalog.
16. Books for Col. Libs.--This work excludes books in foreign languages, except in the fields of literature and history.
17. Jr. Coll. Lib. Coll.--Except for literature, books in foreign languages are listed only in translated editions in the Jr. College Library Collection.
18. Reader's Adviser--Reader's Adviser lists works for the general reader, not scholarly foreign language research papers.
19. Halkett & Laing--Halkett & Laing lists only anonymous and pseudonymous English literature.
20. N.U.C.-- Good choice. This catalog has author listings of printed works from all time periods and in all languages. Brit. Mus. Catalogue has this also.

21. B. M. Cat.--Good choice. This catalog has author listings of printed works from all time periods and in all languages. N.U.C. has this, too.

Keywords: Bibliography #8

1.	period	recent	current
	when	original	
	time	ago	
	year	in print	
	date	available	
2.	subject	field	
	topic	publication	
	about		
	deal		
3.	place	Europe	U. S.
	where	loca	
	U.S.	publish	
	America	countr	
	United States		
4.	author	Mendel	
	wrote		
	writ		
5.	specific	mind	
	kind	adaptation	
	sort	purchase	
	tell	buy	
	look	borrow	
	seek	know	
	title	learn	
	find		
6.	length	extens	
	long	brief	
	lot		
7.	language	translat	
	English		
	German		
8.	level	easy	
	scientific	child	
	scholarly	juvenile	
	popular		

Bibliography #9

Scene: A young woman teacher asks the public library's reference librarian to help her find some information she needs for her class. Find out what she's looking for.

1. Period. I don't care if the material is not very recent, just as long as the information is still valid.
2. Subject. I want some material about the weather.
3. Place. The locale is not important.
4. Author. I don't have a specific one in mind.
5. Specific information. I want to find out the names of some good filmstrips, with summaries of their contents, so I have an idea about their scope.
6. Length. One or two good titles are enough.
7. Language. English, of course.
8. Level. The material is for my fourth grade class.

Hints:

5. Does she want a list of books, or what?
2. Is there a particular topic she's interested in?
8. Does she want high school level material?

Answer hint: Instructional films are listed in which reference tool?

Computer response to recommendations:

1. Besterman--
2. Bib. Index--

} Only lists of bibliographies are found in this work.

3. Amer. B.P.C.--This source lists works sold at auction only.
4. C.B.I.--
5. B.I.P.--
6. S.G.B.I.P.--
7. P.B.I.P.--

} Only books are listed in this source.

8. Guide to Micro.--
9. Subj. Guide to Micro.--

} Only works available in microform are listed in this source.

10. Nat. Register--
11. Diss. Abstr.--Dissertation Abstracts includes only U.S. doctoral theses.
12. Standard Cat.--
13. Senior H.S. Lib. Cat.--
14. Children's Cat.--
15. Fic. Cat.--
16. Books for Col. Libs.--
17. Jr. Col. Lib. Coll.--
18. Reader's adviser--

} This source covers books, not filmstrips.

19. Halkett & Laing--Halkett & Laing covers anonymous and pseudonymous works only.
20. N.U.C.--Correct. Library of Congress Catalog--Motion Pictures and Filmstrips covers films of educative or instructive value. It has a subject approach, gives summaries of contents and lists juvenile films separately.
21. B.M. Cat.--The British Museum Catalogue covers printed works only.

Keywords: Bibliography #9

1.	period	new	
	current	ago	
	recent	available	
	contemporary	now	
	when	time	
	year	modern	
	date		
2.	subject	deal	
	topic	field	
	about		
3.	place	where	spot
	countr	America	United States
	area	U.S.	U. S.
	region	state	
	loca		
4.	author	wrote	distribut
	writ	direct	title
	producer		
5.	specific	list	mind
	kind	biblio	film
	sort	name	periodical
	tell	book	magazine
	look	find	interest
	seek	know	particular
	type		serial
6.	length	few	
	many	lot	
	much		
7.	language		
	English		
8.	level	adult	grade
	easy	child	elementary
	simple	old	secondary
	difficult	age	high school
	class		junior high
	teach		college
	for whom		university
	technical		

Serials #1

Scene: A college student approaches the reference desk in his college library. He asks for some material on urbanetics. Try to help him.

1. Period. I want fairly recent stuff--like the last couple of years.
2. Subject. Urbanetics refers to how much room people need. It's for my architecture course and has to do with city planning.
3. Place. I'm interested in studies and plans for American cities, published in the U.S. or England.
4. Author. I have no special author in mind.
5. Specific information. I want to find some references to journal articles on the subject for a paper I'm writing.
6. Length. I hope to read as many articles as I can.
7. Language. I'd prefer English language articles, please.
8. Level. I would like to see anything that's available, either in popular or scholarly periodicals.

Hints:

5. What kind of information does he want?
1. How recent should the information be?
2. Do you know what urbanetics is?
8. Does he want scholarly material?

Answer hint: Where can you find recent periodical articles by subject?

Computer response to recommendations:

1. Kujoth--Kujoth lists indexes only. It has no titles of articles.
2. Poole--Coverage in Poole ends in 1906.
3. Reader's Guide--Very good. This source has a subject approach to recent periodical articles. Social Sciences and Humanities Index is also a good source.
4. Social Sci. and Human. Index--Very good. This source has a subject approach to recent periodical articles. Reader's Guide is also a good source.
5. Ayer--Ayer does not index individual articles.
6. Ed. & Pub.--This work covers newspapers only.
7. Working Press--This source has directory and descriptive information only.
8. New Serial Titles--
9. Ulrich's--
10. Union List--
11. Irreg. Serials--

} This source does not index individual articles.

12. Book Review Digest--This work has book review citations only.
13. Book Review Index--(same answer as #12)
14. N.Y. Times--This source indexes and summarizes Times' articles only.

Keywords: Serials #1

1.

period	when	time
recent	current	modern
new	year	present
date	ago	comtemporary

2.	subject	mean	planning
	topic	defin	class
	field	term	about
	course	concept	discipline
	purpose	urbanetics	
3.	place	America	Brit.
	countr	where	town
	city	geographic	community
	U.S.	area	loca
	United States	foreign	U. S.
4.	author	architect	anyone
	writ	planner	who
	person		
5.	specific	particular	find
	kind	need	reference
	type	tell	bibliogr
	sort	look	article
	special	describe	journal
	serial	newspaper	statistics
	periodical	essay	list
	magazine	critic	know
	title	citation	learn
6.	length	extensive	several
	long	many	
	short	few	
	much	brief	
	lot	large	
7.	language	English	translat
8.	level	easy	general
	scholar	simple	depth
	popular	technical	medium
	difficult	layman	specialist

Serials #2

Scene: One day a woman states to you, the reference librarian in a small public library: "My son is writing a paper on a book called The President's Plane is Missing. He asked me to get some information for him." Can you help her?

1. Period. It was published in 1967.
2. Subject. He has to write a book report on it for school. It's a suspense tale.
3. Place. It was brought out by some publisher here in the United States. I really don't know which one.
4. Author. The author's name is Robert Serling. He's Rod Serling's brother.
5. Specific information. My son wants to find out what some of the critics had to say about the book when it came out. Do you have any quotations from various reviews in magazines that he could look at?
6. Length. My son wants several different reviews of it, if possible.

7. Language. It had better be in English. That's all he knows.
8. Level. I don't want anything too technical or difficult, please, as my son is only in junior high.

Hints:

5. Do you think her son wants a plot summary? Get her to be more specific.
3. Where was the book published?
1. Is this a new book?
4. Does she know the author's name?
6. How much material does her son want?
7. Is non-English material acceptable?

Answer hint: Can you think of a source containing review excerpts from American and British magazines of books published in the U.S.?

Computer replies to recommendations:

1. Kujoth--This work lists indexes only. It has no entries for individual book titles.
2. Poole--Coverage ends in 1906. It does not have quotations from reviews.
3. Reader's Guide--This source has citations to periodical articles only.
4. Social Sci. & Human. Index--This work indexes scholarly journal articles and does not have book review quotations.
5. Ayer--
6. Ed. & Pub.--
7. Working Press--
8. New Serial Titles--
9. Ulrich's --
10. Union List--
11. Irreg. Serials--

This source does not contain book review citations.

12. Book Review Digest--Correct. Book Review Digest has quotations from book reviews which appeared in English and American periodicals for books published in the U.S.
13. Book Review Index--This work does not quote reviews. It lists only citations to reviews.
14. N.Y. Times--This indexes only reviews which appeared in the Times.

Keywords: Serials #2

1.	period	when	time
	recent	current	contemporary
	new	year	modern
	date	ago	
2.	subject	class	paper
	topic	course	report
	theme	novel	school
	purpose	fiction	about
3.	place	publi	America
	countr	where	U. S.
	U.S.	foreign	Brit
	United States		
4.	author	wrote	person
	writ		

5.	specific	need	describe
	kind	tell	criti
	type	find	review
	sort	know	article
	special	learn	plot
	particular	look	summar
	essay	reference	annot
	quotation		
6.	length	many	brief
	long	few	several
	short	large	much
	little	lot	few
7.	language	English	translat
8.	level	technical	grade
	scholar	layman	high school
	popular	general	junior high
	difficult	depth	elementary
	easy	age	simple
	old		

Serials #3

Scene: Girl student to reference librarian: "We're reading The Mill on the Floss at school and I have to write a paper about it. Could you help me find some material?"

1. Period. The book came out about 1860.
2. Subject. I'm supposed to pretend the novel was just published and that I am a critic who has to write a review of it for some magazine. It's for my English class.
3. Place. I guess it was published in England, wasn't it?
4. Author. George Eliot wrote it.
5. Specific informtion. I was wondering whether you know of any magazines that published reviews when the book first appeared.
6. Length. I was hoping to read a lot of different reviews to give me some ideas for my paper.
7. Language. The reviews had better be in English. I'm not too good in French yet.
8. Level. Do you have any general magazines that had reviews? Nothing too scholarly, please.

Hints:

1. Do you know when the book was published?
5. Is she looking for contemporary literary criticism, or what?
8. Is she interested in the views of scholars about the book?
7. Does it matter in which language the material is written?
4. Does she know who wrote it?
2. What's the theme of her paper?

Answer hint: Can you think of a source having citations to general English language magazines for reviews of nineteenth century novels?

Computer replies to recommendations:

1. Kujoth--Kujoth lists current indexes only.
2. Poole--Yes, indeed. Poole's Index contains reviews of belles lettres published during the nineteenth century which appeared in general English language periodicals.
3. Reader's Guide--Coverage begins in 1900, too late for an original 1860 review.
4. Soc. Sci. & Human. Index--This source has scholarly articles beginning in 1907.
5. Ayer--
6. Ed. & Pub.--
7. Working Press--
8. New Serial Titles--
9. Ulrich's
10. Union List--
11. Irreg. Serials--

This source does not contain book reviews.

12. Book Review Digest--Book Review Digest includes book reviews from 1905 only.
13. Book Review Index--Coverage Begins in 1965.
14. N.Y. Times--The Times only indexes reviews which appeared in its pages.

Keywords: Serials #3

1.	period	recent	new
	date	when	current
	year	ago	century
	contemporary	modern	
2.	subject	class	about
	topic	idea	scope
	aspect	purpose	paper
	approach	theme	novel
	course	fiction	
3.	place	America	U. S.
	countr	where	U.S.
	Brit	England	United States
	publi		
4.	author	writ	wrote
5.	specific	special	find
	describe	kind	particular
	know	criti	type
	need	learn	review
	sort	tell	look
	citation	reference	article
	plot	bibliog	summary
	annot		
6.	length	lot	large
	long	brief	several
	short	many	much
	few	little	great
7.	language	English	translat

8.	level	technical	specialist
	scholar	layman	popular
	general	difficult	depth
	easy	medium	simple

Serials #4

Scene: A local photographer enters the public library. He poses a question which you as the reference librarian must answer. "Do you know anything about the French magazine, Science et Industries Photographiques?"

1. Period. It's a current publication and I'm interested in articles appearing in the last five years or so.
2. Subject. It has articles about what's new in France in the photography field.
3. Place. It's published in France.
4. Author. There's no special person whose work I want to look up.
5. Specific information. I want to find out whether the articles in this magazine are abstracted anywhere?
6. Length. This information is not relevant.
7. Language. I'd like the material in English, if possible.
8. Level. This information is not relevant.

Hints:

5. What does he want to know about it--the price, certain articles, or what?
1. Does he want recent issues?
7. Should the information be in French?
2. Is there a certain topic he's looking for?
4. Does he want articles by any special writer?

Answer hint: Where can you find listings of foreign magazines which indicate the availability of English language abstracts?

Computer replies to recommendations:

1. Kujoth--Kujoth contains lists of indexes only.
2. Poole--Poole does not state where periodicals are indexed and its coverage ends in 1906.
3. Reader's Guide--This work indexes U.S. periodical articles only.
4. Social Sci. & Human. Index--This work indexes American and British periodical articles only.
5. Ayer--Ayer does not indicate whether periodicals are abstracted anywhere.
6. Ed. & Pub.--This work only covers newspapers.
7. Working Press--This work gives directory and descriptive information but does not indicate abstracting.
8. New Serial Titles--No abstracting or indexing services are indicated.
9. Ulrich's--Correct. Ulrich's directory indicates where periodicals may be abstracted and in which languages they are available.
10. Union List--No abstracting or indexing services are indicated.
11. Irreg. Serials--(same ad #10)
12. Book Review Digest--This work indexes book reviews only.
13. Book Review Index--(same as #12)
14. N.Y. Times--This source indexes Times articles only.

Keywords: Serials #4

1.	period	current	present
	recent	year	regular
	in print	out of print	cease
	new	now	old
	date	ago	contemporary
	when	century	modern
2.	subject	purpose	topic
	cover	field	about
	aspect		
3.	place	where	loca
	countr	Paris	France
	foreign	Canada	publi
4.	author	anyone	writ
	editor	someone	person
5.	specific	find	essay
	kind	know	address
	type	learn	price
	sort	look	cost
	special	lescribe	subscri
	particular	article	need
	reference	tell	citation
	abstract		
6.	length	lot	much
	long	brief	short
	little		
7.	language	English	French
	transl		
8.	level	technical	scholar
	layman	popular	practical
	general	simple	

Serials #5

Scene: A public library. One afternoon a high school boy asks you, the reference librarian, the following question: "Where can I read something about Hair?"

1. Period. I think it opened sometime in 1968.
2. Subject. It's a musical revue.
3. Place. It played in New York for quite a long time.
4. Author. I don't remember who wrote it.
5. Specific information. I want to locate some reviews and critical articles about the original production.
6. Length. I'd like to look up several different reviews.
7. Language. The articles have to be in English.
8. Level. I want to find references to reviews of the play in some of the popular U.S. magazines.

Hints:
5. What exactly does he want to read? He's certainly pretty vague.
8. Is he looking for scholarly essays or something less technical?
1. When did Hair first appear?
2. Do you know what Hair is?
3. Where did it originally appear?
7. Is it all right if some of the material is in Spanish?

Answer hint: Which source lists musical comedy and play reviews which appeared in popular U.S. magazines?

Computer replies to recommendations:
1. Kujoth--Kujoth lists review indexes only. It does not nave reviews of individual literary works.
2. Poole--Coverage in Poole ends in 1906.
3. Reader's Guide--Very good choice. Reader's Guide indexes by title musical comedy reviews which appeared in popular U.S. magazines.
4. Soc. Sci. & Human. Index--This work indexes scholarly periodicals only.
5. Ayer--
6. Ed. & Pub.--
7. Working Press--
8. New Serial Titles--
9. Ulrich's--
10. Union List--
11. Irreg. Serials--

This source does not contain reviews or references to reviews.

12. Book Review Digest--This work indexes book reviews. It does not review dramatic productions.
13. Book Review Index--(same as #12)
14. New York Times--Times Index contains only reviews which appeared in the Times.

Keywords: Serials #5

1.	period	current	recent
	year	new	ago
	date	contemporary	when
2.	subject	hair	book
	topic	musical	field
	theatr	play	comedy
3.	place	America	countr
	where	city	New York
	U.S.	Broadway	U. S.
	town	United States	loca
4.	author	who	writ
	wrote		
5.	specific	particular	look
	citation	read	need
	describe	reference	kind
	tell	title	plot
	type	find	text
	sort	know	criti
	summar	special	learn

	review	bibliog	article
6.	length	lot	great
	long	brief	several
	short	many	large
	much	more	little
	few		
7.	language	French	English
	transl	Spanish	
8.	level	simple	medium
	scholar	technical	popular
	layman	difficult	general
	easy	depth	

Serials #6

Scene: A college sophomore requests your assistance in finding some material she needs: "I'm doing a term paper for one of my courses and I'm not sure where to look for information. Could you help me, please?"

1. Period. I'm looking for fairly recent stuff--things that came out in the last few years about today's students.
2. Subject. My paper is going to be about student activism.
3. Place. I guess I'm most interested in activism at American colleges and universities.
4. Author. There's no particular author that I know of right now.
5. Specific information. I'd like to get some references to periodical articles that I could read. They may be about any universities with any type of student unrest.
6. Length. The more articles, the better. This is supposed to be a fairly long paper.
7. Language. I hope most of the information will be in English. It would be a lot easier to read.
8. Level. I want articles and studies done by specialists and scholars who have really studied this phenomenon.

Hints:

5. You could probably help her if she told you what kind of information she wants.
8. Does she want things published in the scholarly journals?
1. Is it only current materials she's looking for?
2. It would be a good idea to find out what topic she's writing about.
3. Is she concentrating on any special place?
7. Is foreign language material acceptable?

Answer hint: There is an excellent subject index to recent articles published in British and American scholarly journals. What is it?

Computer replies to recommendations:

1. Kujoth--Kujoth does not index individual articles.
2. Poole--Coverage in Poole ends in 1906.
3. Reader's Guide--Reader's Guide indexes popular general magazines. It is less apt to contain references to scholarly studies than another source.

4. Social Sci. & Human. Index--Correct. This index contains references to recent articles appearing in British and American scholarly journals and has a subject approach.
5. Ayer--
6. Ed. & Pub.--
7. Working Press--
8. New Serial Titles--
9. Ulrich's--
10. Union List--
11. Irreg. Serials--

This work does not contain citations to individual periodical articles.

12. Book Review Digest--This source has book review citations only, not periodical article references.
13. Book Review Index-- (same as #12)
14. N.Y. Times-- This work indexes N.Y. Times' articles only.

Keywords: Serials #6.

1.	period	year	current
	recent	ago	century
	new	time	today
	date	when	modern
	contemporary		
2.	subject	field	approach
	topic	theme	cover
	event	about	scope
	aspect	purpose	course
	class		
3.	place	America	loca
	countr	where	area
	city	foreign	region
	U.S.	college	community
	U. S.	universit	geograph
	United States	school	spot
4.	author	anyone	who
	unit	someone	wrote
	person		
5.	specific	particular	learn
	kind	need	look
	type	tell	describe
	sort	find	list
	special	know	bibliog
	book	medium	article
	reference	criti	title
	essay	citation	text
	serial	newspaper	periodical
	magazine	journal	
6.	length	short	much
	long	little	lot

	brief	more	great
	many	few	several
	large		
7.	language	transl	
	English	foreign	
8.	level	easy	general
	scholar	simple	depth
	popular	technical	specialist
	difficult	layman	

Serials #7

Scene: A man comes to the public library's reference desk one morning. He tells you, "I want to find out something about Scientific Progress." Can you help him?

1. Period. It was published in the early 1930's and only lasted a couple of years, if I remember correctly.
2. Subject. It was a magazine which had interesting articles on science news.
3. Place. It was published somewhere in New York State, but I can't remember exactly where or who published it.
4. Author. This information not relevant.
5. Specific information. Does the library have any copies I could look at? Or do you know where I might obtain copies, or perhaps photocopies of some of the issues?
6. Length. This information not relevant.
7. Language. It was an English language publication.
8. level. This information not relevant.

Hints:

5. I wonder what he wants to know about it?
2. Is this a book, or what?
1. Is this something your library currently subscribes to?
3. Wasn't this a British publication?

Answer hint: Where can you find listings of library holdings of pre-1950 serials?

Computer replies to recommendations:

1. Kujoth--Kujoth contains lists of currently published indexes only.
2. Poole--
3. Reader's Guide--
4. Social Sci. & Human. Index--

} This work does not give information about which libraries have copies of periodicals.

5. Ayer--Ayer lists current publications only and does not indicate locations in libraries.
6. Ed. & Pub.--This work covers newspapers only.
7. Working Press--This source includes current magazines only and does not indicate library locations.
8. New Serial Titles--Only serials published since 1950 are included.
9. Ulrich's--Ulrich's covers current periodicals only and does not indicate which libraries have copies and whether they are

available for loans or in microform.

11. Irreg. Serials--Only current serials are covered in this work. No library holdings are indicated.
12. Book Review Digest--
13. Book Review Index-- } This work has book review citations only.
14. New York Times--The Times Index covers N.Y. Times articles only.

Keywords: Serials #7.

1.	period	year	modern
	recent	ago	present
	new	old	now
	date	century	still
	when	today	in print
	current	contemporary	out of print
	cease	time	
2.	subject	magazine	book
	topic	periodical	newspaper
	field	journal	about
	purpose	serial	
3.	place	United States	Brit
	countr	America	loca
	U. S.	foreign	publish
	U.S.	where	
4.	author		
	writ		
	editor		
5.	specific	need	address
	kind	tell	subscri
	type	find	price
	sort	know	cost
	special	learn	issue
	particular	look	cop
	certain	describe	title
	circula		
6.	length	lot	more
	much	brief	
7.	language		
	English		
8.	level	general	
	scholar	technical	
	popular	layman	

Serials #8

Scene: A woman telephones the reference desk of the public library one day. She says, "My mother has just moved here to live with me, but she's very homesick. I thought it might help if she could read her hometown newspaper. It's called El Sol. Do you have any information in the library about this paper? Try to help her.

1. Period. I want her to receive the daily issues.
2. Subject. Didn't I already mention that it's a newspaper?
3. Place. My mother is from Dallas, Texas. That's where the paper is published.
4. Author. This information not relevant.
5. Specific information. I'd like to find out how much it costs to subscribe to this paper, and the address, if possible.
6. Length. This information not relevant.
7. Language. It's a Spanish newspaper. My mother can't read English.
8. Level. This information not relevant.

Hints:

5. Try to determine what sort of information she wants?
3. I think you should find out where her mother previously lived.
7. Does she know whether this is an English language publication?

Answer hint: Where is the best place to look for information about U.S. published newspapers, including foreign language ones?

Computer replies to recommendations:

1. Kujoth--Kujoth lists periodical indexes only.
2. Poole--Poole's Index is a guide to pre-1906 periodical articles only.
3. Reader's Guide--
4. Social Sci. & Human. Index-- } This work indexes periodical articles only.
5. Ayer--Very good. Ayer gives information about subscription prices and addresses of newspapers. It includes U.S. foreign language publications.
6. Ed.& Pub.-- Perhaps. But this work does not have as complete a coverage of U.S. foreign language newspapers as another source. Emphasis is on advertising rates and other information for advertisers.
7. Working Press-- This source contains directory and descriptive information.
8. New Serial Titles-- New Serial Titles does not include newspapers.
9. Ulrich's-- This work has information on periodicals only.
10. Union List--
11. Irreg. Serials-- } this source does not include newspapers.
12. Book Review Digest--
13. Book Review Index-- } This work has book review citations only.
14. N.Y. Times-- Times Index covers N.Y. Times articles only.

Keywords: Serials #8.

1.	period	date	year
	recent	when	now
	new	current	often

	time	daily	
	frequent	weekly	
	regular	monthly	
2.	subject		
	publication		
	field		
3.	place	U. S.	foreign
	countr	United States	where
	city	America	
	U.S.		
4.	author	editor	
	writ	publisher	
5.	specific	learn	price
	kind	look	subscri
	type	describe	cop
	sort	address	issue
	special	cost	find
	particular	tell	know
	need		
6.	length		
	lot		
	more		
7.	language	French	
	English	transl	
	Spanish		
8.	level	general	
	popular	old	

Serials #9

Scene: The public library. A middle aged man asks you to help him. "Can you give me some information about Le Monde? I want to give it to my son for his birthday."

1. Period. It appears daily.
2. Subject. It's a newspaper.
3. Place. It is published in Paris.
4. Author. This information not relevant.
5. Specific information. I'd like to find out the name and address of the American representative so I could write for information about a subscription to it.
6. Length. This information not relevant.
7. Language. It's in French, of course.
8. Level. This information not relevant.

Hints:

5. Is there any specific information he's looking for?
2. Is this a magazine?
3. Where is it published?

Answer hint: Where is a good place to find names and addresses of U.S. representatives of foreign newspapers?

Computer replies to recommendations:

1. Kujoth-- Kujoth lists periodical indexes only.
2. Poole--
3. Reader's Guide--
4. Social Sci. & Human. Index-- } This source indexes periodical articles.
5. Ayer-- Ayer does not cover European newspapers.
6. Ed. & Pub.-- Correct. Editor and Publisher's International Yearbook has names and addresses of foreign newspaper representatives in the U.S.
7. Working Press-- This source does not include information about foreign newspaper representatives in the U.S.
8. New Serial Titles-- New Serial Titles does not include newspapers.
9. Ulrich's--This work has information on periodicals only.
10. Union List--
11. Irreg. Serials-- } This source does not include newspapers.
12. Book Review Digest--
13. Book Review Index-- } This work has book review citations only.
14. N.Y. Times-- Times Index covers N.Y. Times articles only.

Keywords: Serials #9.

1.	period	current	frequent
	recent	year	regular
	new	now	daily
	date	often	weekly
	when	time	monthly
	contemporary		
2.	subject	magazine	serial
	publication	periodical	book
	newspaper	journal	field
3.	place	United States	foreign
	countr	France	where
	U.S.	America	nation
	U. S.	Paris	Canada
4.	author	editor	
	writ	publisher	
5.	specific	need	describe
	kind	tell	address
	type	find	price
	sort	know	cost
	special	learn	subscri
	particular	look	certain
	issue	cop	

6. length
   much
   lot

7. language
   English
   French

   Spanish
   transl

8. level
   scholar
   popular

   technical
   general
   old

   grade
   age

Bibliography for Simulated Exercises

Biography

Biography Index
Contemporary Authors
Current Biography
Dictionary of American Biography
Dictionary of National Biography
Essay and General Literature Index
International Who's Who
National Cyclopedia of American Biography
Slocum. Biographical Dictionaries and Related Works
Webster's Biographical Dictionary
Who's Who
Who was Who
Who's Who in America
Who was Who in America

Bibliography

American Book-Prices Current
Besterman. World Bibliography of Bibliographies
Bibliographic Index
Books for College Libraries
Books in Print
British Museum. General Catalogue of Printed Books
Children's Catalog
Cumulative Book Index
Dissertation Abstracts
Fiction Catalog
Guide to Microforms in Print
Halkett & Laing. Dictionary of Anonymous and Pseudonymous English Literature
Junior College Library Collection
National Register of Microform Masters
Paperbound Books in Print
The Reader's Adviser
Senior High School Library Catalog
Standard Catalog for Public Libraries
Subject Guide to Books in Print
Subject Guide to Microforms in Print
U.S. Library of Congress. The National Union Catalog

Serials

Ayer and Son's Directory of Newspapers and Periodicals
Book Review Digest
Book Review Index
Editor and Publisher. International Year Book
Irregular Serials and Annuals
Kujoth. Subject Guide to Periodical Indexes and Review Indexes
New Serial Titles
New York Times Index
Poole's Index to Periodical Literature
Reader's Guide to Periodical Literature
Social Sciences and Humanities Index
Ulrich's International Periodicals Directory
Union List of Serials in Libraries of the U.S. and Canada
The Working Press of the Nation

Instructions for Simulated Exercises:

1. Choose a client by typing a digit 1 through 9 (1 through 7 for Biography).
2. Every time you have completed a statement to the computer, operate the carriage return.
3. If you need help at any time, type HINT.
4. When you are ready to suggest a title, first type the word RECOMMEND or = , then a space, and then the proper abbreviation. End all questions with punctuation or space.

APPENDIX C

PRE AND POST TESTS
&
EVALUATION FORM

Pre and Post Tests Phase I Fall 1969

Encyclopedias

Where would you find:

1. Selected, annotated bibliographies on history, law, political science, and government located in a single volume?
2. An encyclopedia index which also provides definitions and basic facts?
3. Identification and pronunciation of the obscure folklore figure Gluskabe?
4. Information on official colonial policy immediately prior to the fall of Dienbienphu?
5. A study aid in outline form?
6. What was the principle event of the year 79 A.D.?
7. With which Roman god is the Greek god Zeus identified?
8. An illustrated article with several maps and a graded bibliography on North Dakota suitable for children?
9. Who was Ceres?
10. A fact summary for the U.S. with several illustrations suitable for young people?
11. A very brief explanation of Confucianism complete with pronunciation?
12. A long article on New York State subdivided by subjects with a bibliography?
13. An extensive article on the principles of art written for the knowledgeable reader?
14. An illustrated article on the electron microscope with a separate, graded bibliography?

Yearbooks

Where would you find:

1. The 1964 U.N. budget for special missions?
2. Whether there are any good books out yet on the proceedings of Vatican II?
3. The amount of pay of a vice-admiral in the Navy with 12 years service?
4. The currency of Norway and what the present exchange rate is for U.S. dollars?
5. A summary of the events that took place between the Russians and the Czecks during the last week of July, 1968?
6. The programs of Malta's two leading political parties?
7. The meaning of a new scientific term coined within the last year?
8. A list of celebrations and anniversaries which were observed in 1968?
9. Who won the first Indianapolis 500 race?
10. What is the predominant religion of Afghanistan?
11. Latin American writers and their works listed by country?

Statistics

Where would you find:

1. A table of U.S. postal rates from 1792-1957?
2. Figures on the divorce rate in the Netherlands, 1962-66?
3. The number of new residential buildings constructed in Uruguay in 1961?
4. How many tons of coal were produced in France in November, 1968?
5. What percent of Maryland's voters cast ballots in the 1964 presidential election?

Biography

Where would you find:

1. Where was Howard Hughes born?
2. A long biography with a bibliography on James McNeill Whistler, 19th century American artist?
3. The official positions held by Milovan Djelas, Yugoslav author?
4. Bibliographic information on a dictionary of French pseudonyms?
5. The educational background of Saul Bellow?
6. The exact death date of Aubrey Beardsley, English artist?
7. The pronunciation of Fa-Hsien, 4th century Chinese priest and author?
8. Location of a 1967 article on Ionesco's Rhinoceros?
9. Discussion of the career of Rabbi Stephen Wise, early 20th century American religious leader?
10. Biography and listing of works of Alexander Pope?
11. Location of recent articles on Beethoven?
12. Birth and death dates of American evangelist Aimee Semple McPherson?
13. Chatty biography with portrait of Soupy Sales?
14. Birth date of British actor Richard Attenborough?

Bibliography

Where would you find:

1. An example of the proper way to type a title page?
2. The location of a recent article on the curriculum of library schools?
3. Does the U.S. Army maintain a library in Munich?
4. The names of the people involved in a particular TV network?
5. Who is the current chairman of the Ann Arbor Pioneer High School library?
6. What is the value of an 1864 edition of James Doyle's A Chronicle of England?
7. A sample page of a sheet printed in Monotype Centaur No. 252?
8. A summary of the article by David Kaser published in 1965 on library fund raising?
9. The name of a nearby library having a special collection on glass whose holdings are unpublished?
10. The author of the anonymous play The Macaroni which was first presented in 1773 in York, England?
11. Rules for printing the Congressional Record?
12. Which bookstores in Detroit list out-of-print books as one of their specialties?
13. How many degrees were awarded in library science in 1964-65?
14. A description of recent work in the area of documentation in library work which includes an extensive bibliography?
15. An example of standard footnotes?
16. The meaning of the book term "grossessimo"?
17. The summary of a 1968 doctoral thesis on the Han dynasty of China?
18. The meaning of the term "printer's devil"?
19. A discussion of the Airlie House Conferences in connection with information science and libraries?
20. The names of American libraries having special collections on automotive history whose holdings are available in published form?
21. An article on young people's reading habits written in 1894?
22. What kinds of special materials make up the collection of the Redwood Empire Association library?

23. A list of separately collated bibliographies on children's literature with an international scope?
24. What does the cataloging term "anonymous classic" mean?
25. From what university did Constance Winchell receive her A.B.?
26. A 1967 bibliography on Victorian jewelry?
27. Summary of a recent publication on the uses of information systems in business?

Dictionaries

Where would you find:

1. An explanation of the meaning and origins of the term "Babbittry"?
2. A list of synonyms for the word "necessary"?
3. A listing of the major world events of the 1450's?
4. The present participle of the verb "swing"?
5. What the abbreviation "logo" means?
6. Synonyms and antonyms for the word "sweet"?
7. A criticism of Webster's Third New International Dictionary?
8. An explanation with quotes on the meaning of "moonshiner"?
9. What the slang expression "Michigan roll" means?
10. A discussion of the traditional usage of "such" as a pronoun?
11. Etymology of "shoe" with quotations showing usage since 1150 A.D.?
12. What does ROCCM stand for?
13. The correct pronunciation of "Uruguay"?
14. Brief rules for the proper use of the semi-colon?
15. An informal, descriptive explanation of the correct usage of the terms "apprise" and "apprize"?
16. All the current pronunciations of the word "water"?
17. The pronunciation of "car" most common in the East?

Handbooks of Information

Where would you find:

1. The proper way to make an introduction at a party?
2. A brief summary of King Lear?
3. A list of National League batting champions since 1901?
4. Must you be recognized by the chair before seconding a motion?
5. What is the world's longest suspension bridge?
6. Who made the first non-stop cross-country airplane flight in the U.S.?
7. Who was the first astronaut?
8. A bibliography of books on Ash Wednesday?
9. What is the correct way to announce the arrival of a new baby?
10. A history of the origin of golf?
11. An identification of the literary character Raskolnikov?
12. A bibliography of materials on George Washington?
13. The duties of a vice president of an organization?
14. Who is the world's fattest man?
15. Background information on the Battle of New Orleans?

Serial Publications

Where would you find:

1. Whether the New Monthly Magazine, which began is 1814, is still being published?
2. In what scholarly journal an article on the Protestant ethic by Reinhard

Benkix appeared in 1967?
3. Whether William Mann's book on Richard Strauss, which appeared in 1966, received favorable reviews?
4. The political bias of the Boonville, Indiana, Enquirer?
5. Who publishes the serial Rio Grande Do Sul, 1960-?
6. Where can one find a list of reviews of art shows which opened in New York City in 1967?
7. What articles Bernard Jacobson wrote about Igor Stravinsky in Hi Fidelity magazine in 1966?
8. The chief editors of the Fairfield, Iowa, Ledger a daily newspaper?
9. Whether the YWCA Magazine contains book reviews?
10. The address of the publishers of the Frozen Foods Year Book?

Directories

Where would you find:
1. What city uses zip code number 38839?
2. When the International College of Surgeons was founded?
3. Whether Braniff International Airlines flies to Mexico City from New York City?
4. The president of the Diamond Walnut Growers Association?
5. Does the Taft Hotel have good business meeting facilities?
6. The director of the Tennessee State Museum?
7. The address of the main office of the Boston and Maine Railroad?
8. The name of the donor of the Burke Foundation?
9. Whether anyone makes florescent light fixtures in Boston?

Government Publications and Directories

Where would you find:
1. What recent non-technical government publications are available on the subject of weed control?
2. In what U.S. Government document may one find a bibliography of the Eskimo language published in 1887?
3. What publications were put out by the U.S. Food and Drug Administration in 1967?
4. Which state publications the Library of Congress received in 1967 which dealt with mental hygiene?
5. What serial number is assigned to each congressional report or document?
6. A brief abstract of a U.S. Government report about the erection of a lighthouse at Thunder Bay, Michigan, 1878?
7. What U.S. Government publications are available for sale on the subject of aging?
8. How the Smithsonian Institute is organized?
9. What the U.S. Children's Bureau published in 1922?

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Yearbooks

Where would you find:
1. The address of the American Psychological Association?
2. The English population of Pakistan?
3. The names and addresses of the newspapers and periodicals published

in South Africa?
4. The amount of the state sales tax in New York?
5. The British minister to Kenya?
6. The highest temperature on record in Tuscon?
7. The director of the British Museum in London?
8. The number of telephones in Ontario?
9. The population of Cameroon?
10. Value of the German mark in American money?
11. The national anthem of Denmark?
12. The names of the U.N. representatives from Ceylon?
13. What is one of the major wire services of Yugoslavia?
14. In terms of membership, which are the largest churches in Chile?
15. How many television sets are there in New Zealand?

Dictionaries

Where would you find:
1. What is the difference between "remembrance" and "memory"?
2. Where and when operation "overlord" was executed?
3. The plural of fish?
4. Four antonyms for tractable?
5. What is mead? When was the term first used?
6. Whether the term "in this day and age" is a chiche?
7. The meaning of "meetinghouse year"?
8. The name of the male goose? The baby goose?
9. Some antonyms for "loquacious."
10. When the word "pritty" was used for "pretty"?
11. The earliest use of the word "ithomiine"?
12. The distinction between "scarce" and "rare"?
13. What is a "coup de gras"?
14. The slang meaning of the word "pilfered"?
15. The distinction between "sheen" and "luster"?

Evaluation Form

Name_____

Exercise_____

1. How helpful did you find the exercise in learning the material?

very helpful	helpful	some help	no help

2. How interesting did you find the exercise?

not interesting	fairly interesting	moderately interesting	most interesting

3. How much did the exercise clarify the material in the book of annotations?

much	some	little	none

4. Did you find working with a group:

helpful	neutral	distracting

5. Did you complete the questions assigned in class on this exercise prior to today?

Yes_____ No_____

6. Please comment freely on your feelings regarding this experience and any suggestions for changes in content or format.

APPENDIX D

A MANUAL FOR FOIL

A MANUAL FOR FOIL

DESCRIPTION FOR PROGRAMMERS

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DESCRIPTION FOR PROGRAMMERS

Preparation of the FOIL Language was supported in part by grants from the U.S. Office of Education, Contract No. OEC-5-9-320560-0043, UNIVAC Division of Sperry Rand Corporation, and by the Advanced Research Projects Agency, Contract No. DA-49-983 OSA-03050.

1. ELEMENTS

1.1 Constants

Numerical constants are integers or fractions which may be positive or negative. While no sign is necessary to signify a positive constant, the " - " sign must be present if the number is negative. A constant may not contain commas. Thus, "2,700" is an illegal form of "2700."

Using an exponent, the constant may be specified by the E notation which is synonymous with "times 10 to the power of." For example,

5E6	means	5×10^{6}	(5,000,000)
54.2E-3	means	54.2×10^{-3}	(.0542)
-.7E-1	means	$-.7 \times 10^{-1}$	(-.07)

A maximum of 16 digits is allowable for the magnitude of the constant. No decimal point is needed if the constant is an integer (e.g., 5E6).

1.2 Variables

The name of a variable consists of one to eight letters or digits, the first of which must be a letter. If the variable name represents an array variable, then an element of the array is specified by the variable name followed by the appropriate subscript enclosed in parentheses. A subscript may be any expression whose value is positive. Thus the following are "single variables": X, NUM, AL, COUNT; while the following are elements of arrays: F(X), VEC(13), ALPHA(N1), NOVA (I+X*4).

All variables used in a program except the predefined variables are assigned the value of zero before the program begins to execute. A program may contain no more than 500 distinct variables and array elements (this limit may be increased if necessary by a minor alteration in the interpreter).

1.3 Statement Labels

A statement may be labeled or unlabeled. Labels are used to refer to statements by other statements. A statement label consists of a name (i.e., one to eight letters or digits, the first of which must be a letter) which may be followed by a constant integer subscript enclosed in parentheses. A statement label is preceded by a colon to distinguish the label from the beginning of the statement. Thus the following are statement labels:

```
:START
:NEXT
:LBL(2)
```

Since the preceding colon indicates a statement label, a special label field is not required. A statement label is assigned the value of the program line number of the line on which the label occurs. There can be no more than 100 statement labels in a program.

1.4 Arithmetic Operators

Addition is written as "+" and subtraction as "-". Multiplication is written as "*"; the symbol may not be omitted. A*2 may not be written as A2 because it would be impossible then to distinguish such a product from the variable A2. Division is written as "/". The exponentiation operator is "**". For example, 5**6 means 5^6 and X**Y means X^Y.

1.5 Arithmetic Expressions

Arithmetic expressions are defined inductively as follows:

(a) All constants, variables, subscripted array variables, and values of functions are arithmetic expressions.

(b) If E and F are any arithmetic expressions then the following are also arithmetic expressions: -E, E+F, E-F, E*F, E/F, (E), and E**F.

(c) The only arithmetic expressions are those arising in (a) and (b).

Parentheses are used as in ordinary algebra and logic to specify the order of computation. When parentheses are deleted, the addition and subtraction operations are performed before multiplication and division. The following are examples of arithmetic expressions:

```
C + D
MEAN + RANDOM.(-2,2)
-COUNT / (5 + SUM) + VAL(X)
```

An exception to the parentheses rule is permitted for the unary minus arithmetic operation. For example, A + -B need not be written as A + (-B).

1.6 Relational Operators

The six relational operators are as follows:

=	equal to
¬ =	not equal to
>	greater than
>=	greater than or equal to
<	less than
<=	less than or equal to

Two other forms of operators are possible which are equivalent to ">=" and "<=". These are:

¬<	not less than
¬>	not greater than

The relational operators express an arithmetic condition which can be either true or false.

1.7 Logical Operators

The three logical operators are:

&	representing	AND
|	for	OR
¬	for	NOT

Only expressions having the value "true" or "false" may be combined with logical operators.

1.8 Precedence of Operations

A precedence value is assigned for each arithmetic and logical operation. Higher precedence operations are performed before lower precedence operations. When unaltered by parentheses, the order of operations performed within an expression (descending order of precedence) is as follows:

Precedence Value	Symbol	Operation
8	**	exponentiation
7	-	unary minus
6	*,/	multiplication, division
5	+,-	addition, subtraction (binary)
4	=, ¬ =, >, >=, etc.	all relational operators
3	¬	unary NOT
2	&	logical AND
1	|	logical OR

1.9 Functions

A total of 29 functions are available for use in expressions. Each has one argument and is referenced by giving the function name followed by a period (.). The augument itself may be any expression enclosed in parentheses. For example,

```
Y = X-Sin.(Z + SQRT.(17))
```

where the sine and square root functions are demanded.

There are eight built-in functions which may be called by any FOIL program. They are:

NUMBER.(I) which returns the value of the Ith number in the student's last response.

ABS.(X) which returns the absolute value of X.

INTEGER.(X) which returns the whole number part of a number, e.g., INTEGER.(5.3) = 5
INTEGER.(-5.3) = -5

FRACTION.(X) which returns the fraction part of X, that is, FRACTION.(X) = X-INTEGER.(X) For example, FRACTION.(-5.3) = -.3

SIGN.(X) = +1 if $X \geq 0$
-1 if $X < 0$

EXP.(X) = e^X

LN.(X) or the natural logarithm of X = $\log_e X$

LOG.(X) = $\log_{10} X$

Other functions available are part of the normal FORTRAN library of functions plus a few more. (To access these functions, the parameter MATH, PAR=MATH, must be specified on the $RUN command card.) These are:

RANDOM.(X) which returns a random number uniformly distributed between 0 and X, where $0 \leq \text{result} < X$.

SQRT.(X) the square root of X.

Trigonometric functions: SIN., TAN., SEC., COS., COT., CSC.

Inverse trigonometric functions: ARCSIN., ARCCOS., ARCTAN.

Hyperbolic functions: SINH., TANH., SECH., COSH., COTH., CSCH.

Other functions:

ERF.(X) $= \frac{2}{\sqrt{\pi}} \int_0^X e^{-u^2} du$

ERFC.(X) = 1-ERF.(X)

GAMMA.(X) $= \int_0^\infty u^{x-1} e^{-u} du$

LNGAMMA.(X) = LN.(GAMMA.(X))

1.10 Response Processing Operations

The response processing functions specify a comparison or match between the anticipated response and the student's actual response (see section 2.2). The value of a response-processing function is "true" if the specified comparison is successful; otherwise the value is "false." The anticipated responses are given in the form of IF statements.

An exact match is required if the anticipated response is enclosed in double quotes, for example:

"GENERATIVE GRAMMAR"

The match is successful only if the student's response consists of exactly the same characters, in exactly the same order, including spacing and punctuation.

However, if only specific words are required in the student's response regardless of their order, a successful comparison can be established by enclosing the anticipated response or the basic root of the anticipated response in single quotes. For example, any student response containing the word "yes" will successfully match the anticipated response

'YES'

It is also possible to specify a list of keywords and to require that a certain number be present in any order in the student's response before a comparison is considered successful. This is done by following the list with the number of keywords desired in the response. In the example below, a student's response containing two or more of the four specified words will match the following anticipated response.

'MEAN, MEDIAN, MODE, AVERAGE'2

If no number follows the list of words, only one match is required in the student's response:

'one,1,two,2'

will match an answer containing one or two written as a digit or a word.

By placing percent signs (%) before and after an anticipated response and following the final sign with the appropriate number, a percentage comparison between anticipated response and the student's actual response can be made. For example, the anticipated response

% SCHAUMGUMMI %70

will successfully match a student's response if 70 percent or more of the letters are present in the appropriate order.

All these varieties of response-processing functions specify a type of comparison between the enclosed anticipated response and the response entered by the student. The value of the function is "true" if the comparison is successful and is "false" if the comparison is unsuccessful.

1.11 Logical Expressions

Logical expressions are defined inductively as follows:

(a) Response-processing functions are logical expressions,

(b) If E and F are arithmetic expressions, E=F, E¬=F, E<F, E<=F, E>F, E>=F, E¬>F, and E¬<F are logical expressions.

(c) If G and H are logical expressions, then the following are logical expressions:

G & H
G | H
(G)
¬ G

(d) The only logical expressions are those arising in (a), (b), and (c).

Logical expressions specify conditions which may be satisfied (true) or not satisfied (false) depending on the value of the variables given or on the match of the anticipated response and the student's response.

2. STATEMENTS

2.1 TYPE Statement

The TYPE statement presents a message or other information to the student. The string of characters which follow the TYPE command is typed to the student. The message may be continued onto additional lines by indenting the continuation lines three or more spaces more than the TYPE statement was indented. Examples of TYPE statements:

```
TYPE Very Good.  Let's continue.
```

and

```
TYPE  Do you think nazism and fascism are most alike in their
    ideologies or in their practices?
```

There must be at least one blank space following the TYPE statement. Additional spaces may be used preceding the first line and continuation lines of the message. For example, a continuation line indented seven spaces from the above TYPE statement would be indented four spaces (7 minus 3) as it appears on the terminal.

The TYPE statement is also used to present the numerical value of a variable to the student. A number sign, "#", immediately following the space after TYPE command indicates that the numerical value of the following arithmetic expression is to be typed instead of the literal string of characters. Assuming that the value of SUM is 60, the following TYPE statement would cause the integer 20 to be displayed,

```
TYPE #SUM/3
```

whereas

```
TYPE SUM/3
```

would display the characters SUM slash 3.

2.2 ACCEPT Statement

The ACCEPT statement causes a response from the student to be accepted and saved for later processing. Not more than 120 characters can be accepted. If the response is longer, the later characters are ignored. The statement simply consists of the word:

```
ACCEPT
```

All statements following an ACCEPT statement which are used to recognize the student's response and react appropriately to it should be indented one or two spaces. Identation breaks up a program into segments associated with each ACCEPT statement and contributes to the readability of the program listing. In addition certain implicit branching functions are available which operate on the basis of the indentation.

A message may be displayed immediately after an ACCEPT statement, usually to facilitate the input of a student's response. At least one blank space must follow the ACCEPT statement. For example, the following sequence asks the student to type his answer at the logical point of the message.

```
TYPE  How many fish do you wish to catch?
ACCEPT  The catch =
```

The computer displays the question first and then the phrase, "The catch =." The printing ball of the terminal stops at the point where the student is expected to respond.

2.3 IF Statement

The IF statement specified a condition which must be satisfied before an action or set of actions will be performed. The condition may be any logical expression (see section 1.11) and any legal statement or collection of statements may be executed conditionally. If only one statement is to be executed conditionally, it may follow the logical expression with a comma used as a delimiter. In the following example X is set equal to zero only if the value of Y is greater than 10.

```
IF Y>10, X = 0
```

A series of statements to be executed conditionally are indented one or two spaces on the lines following the IF statement. If the condition specified by the logical expression is satisfied, the indented statements following are executed; otherwise they are skipped over. For example:

```
IF "OK", GO TO FRAME3

IF 'YES'
  TY THAT'S CORRECT.
  COUNT = COUNT + 1
```

```
GO TO QUEST3

IF 'NO'

TY THE CORRECT ANSWER IS YES.

IF COUNT> 10, GO TO QUEST3

GO TO REVIEW

TY PLEASE ANSWER YES OR NO.
```

2.4 ELSE Statement

The ELSE statement may be used to close-up a conditional sequence when the preceding conditions are not satisfied. A message to be displayed to the student may follow the ELSE statement. For example,

```
IF 'OK', GO TO FRAME3

ELSE  GO BACK;YOUR RESPONSE NOT RECOGNIZED
```

A comma or semi-colon must always precede a message following the ELSE statement.

2.5 OR IF, OR ELSE Statements

The OR IF and OR ELSE statements specify logical evaluations to be made when a preceding IF statement is not satisfied. Should the IF statement be true, the conditions specified by OR IF and OR ELSE are ignored. Should the IF statement be false, then the OR IF statement is evaluated as another IF statement. An OR ELSE statement is treated like an OR IF statement for which the logical expression is always true. For example,

```
IF 'DEMOCRACY', GO TO START1

OR IF 'COMMUNISM', GO TO START2

OR ELSE GO BACK;PLEASE SPECIFY THE TOPIC.
```

2.6 GO Statement

The GO statement alters the normal sequential execution of statements by transferring control to a specified line in the program. Any arithmetic expression which begins with either a statement label name or a constant (but not a variable name) may be used in a GO statement to specify the number of the program line to which control is transferred. Since a statement label (see section 1.3) is assigned the value of the number of the line on which the label occurs, the following GO statement will transfer control to the statement which is labeled START:

```
GO TO START
```

A branch to the fifth line after the one labeled START is indicated by the following statement:

```
GO TO START + 5
```

If a message follows the GO statement, it is typed to the student just before the branch is executed. The message is continued onto additional lines by indenting the continuation lines three or more spaces. In the following example the message "Let's begin again" is presented just before control is transferred to the line labeled START:

```
GO TO START; Let's begin again
```

(A comma or semi-colon must precede a message after a GO statement.)

A series of GO statements may be numbered to indicate that each statement is to be executed only if the number of the statement equals the number of times the student has been cycled through the previous ACCEPT statement. A GO statement is numbered by placing a single digit after the word GO, for example GO2. The following three statements indicate one use of a series of conditionally executed branch statements:

```
GO1 BACK  Incorrect.  Try again.

GO2 BACK HINT:  Read Paragraph 2 again.

GO TO REVIEW
```

The last GO is left unnumbered so that it is executed as many times as it is reached.

2.7 Assignment Statement

Values are assigned to variables and arrays by means of the assignment statement. The statement has the form illustrated by:

```
ALPHA = X + Y + 100
```

The variable or array element on the left side of the equal sign is given the value of the arithmetic expression on the right side. Successive array elements are assigned values if the right side of the assignment statement consists of a series of arithmetic expressions separated by commas. The following statement assigns values to A(1), A(2), A(3), and A(4).

```
A = 10, 20, 25, X*2
```

If the total of eighty characters are reached on a line, the remainder of the assignment must begin with A(n):

```
A(17) = 11, 15, 22
```

if values for A up to A(16) have been given. The subscript may be any expression that has a positive value.

(NOTE: FOIL accepts a total of 255 characters per line. However, the actual number of characters processed per line depends upon the I/O devices used, such as card images and different types of terminals.)

2.8 STOP Statement

Execution of a program terminates when a STOP statement is encountered. The statement consists of the single word:

```
STOP
```

If a message follows the word STOP, it is typed to the student as a final comment. The message may be continued onto additional lines by indenting the continuation lines three or more spaces. In the following example the message "GOOD BYE" is presented just before the program terminates:

```
STOP  GOOD BYE
```

2.9 END Statement

The END statement may be used as the very last statement of a program to terminate execution. If the end of the program is the end of the file on which it is stored, the END statement is not needed. However, if there are lines in the program file after the last line of the executable program, the END statement is needed to prevent FOIL from trying to read these lines as part of the program.

2.10 CALL Statement

The command CALL is used to introduce subroutines written in language with OS S-type calls, such as FORTRAN. The $RUN card must specify:

```
PAR=MSUB=FILENAME
```

Where MSUB is the name of the subroutine and where FILENAME is the name of the file or device from which the object program for the subroutine can be loaded, the prototype form is:

```
CALL  MSUB(ARGI,...,ARGN)  Message Permitted
```

Arguments are limited to 20 and are FOIL variable names without subscripts. However, the CALL command need not have arguments.

The called subroutine can change the arguments of the CALL command. But if the arguments are changed in the subroutine, keep in mind that arguments are double word floating point numbers (REAL*8 in FORTRAN).

Two special predefined variables are available for subroutine calls.

RESPONSE--the value of the student's last response. This is a byte-aligned string of characters. In FORTRAN, the array-type, LOGICAL*1, is used. If the subroutine changes this string, that change is reflected in future response processing in FOIL.

RESLEN----the number of characters in RESPONSE. This is REAL*8 and must be declared so in the user's subroutine.

Unlike other arguments, the value of predefined variables, such as RESLEN, TIME, etc., cannot be changed.

The following example illustrates the use of RESPONSE and RESLEN for writing a subroutine in FORTRAN which replaces small "1's" by ones. This may be useful for programs where student's are likely to type the alphabetic "1" for the numeric "1".

```
      SUBROUTINE  MSUB(RESPON, RESLEN)

      LOGICAL*1 RESPON(1)

      REAL*8  RESLEN

      LOGICAL*1  SMALL /Z93/

      LOGICAL*1  ONE /'1'/

      LENRES = RESLEN

          DO  10  I=1,LENRES

          IF(RESPON(I) .EQ. SMALL)RESPON(I)=ONE

10    CONTINUE
      RETURN

      END
```

3. PREDEFINED NAMES

A few variable names have been assigned specific meanings and values in all FOIL programs and may be used for convenience or to obtain information otherwise unavailable.

The three statement labels HERE, BACK and ON are each assigned the value of a particular program line number and therefore may be used for branching to unlabeled statements. HERE always has the value of the current program line number; BACK is set to the line number of the previously executed ACCEPT statement; and ON takes the value of the line number of the next statement in the program which is indented no deeper than the previous ACCEPT statement. These variables are continually being reset internally by the interpreter during execution of a program.

BRANCH is a statement label which may be assigned the values of BACK, OFF, or ON and which controls implicit branching when a statement is encountered which is indented less deeply than the last executed statement. If BRANCH equals BACK and a nonindented statement is encountered, an implicit branch is equivalent to an explicit branch of the form GO BACK. If BRANCH equals ON, an implicit branch is performed which is equivalent to the explicit branch GO ON. If BRANCH equals OFF, no branch is performed and the next statement in the lesson is executed. BRANCH is preset to OFF but may be changed at any point in a program. Any explicit branch will override the implicit branch convention.

e.g.

```
BRANCH = ON

TYPE  Which management strategy do you want to adopt, catch
   or escapement?

ACCEPT

  IF 'A, ESCAPEMENT'

    STRAT = 1

  IF 'B, CATCH'

    STRAT = 2

    GO BACK  Catch or Escapement

TYPE  You may change your strategy at the end of any five-year
   period
```

If the first keyword search is successful, STRAT is set to 1 and a branch made to the TYPE statement (if branch had been set to OFF, the GO BACK and its type would have been executed).

Two statements are available for timing the student and making decisions on the basis of his progress. The value of TIME is the number of seconds since the student began the program and RPTIME is the student's response time in seconds. TIME is updated by the system clock and RPTIME is automatically set each time the student completes a response. Both are accurate to .001 second. For example,

```
IF RPTIME>20, GO TO START
```

The student must make his response in less than 20 seconds, otherwise he is branched to another point in the program. A statement such as the following:

```
IF TIME>3600, STOP
```

would terminate the program if the student takes more than hour at the

terminal. Also, at any point in the program, the current value of TIME can be called for by the command:

```
TYPE #TIME
```

4. DEBUGGING AIDS

4.1 Direct Execution Facility

A program author may conveniently test his program by executing it in the role of a student, noting deviations from the program's intended behavior, and making corrections immediately using editing capability with the interpreter.

At times the author may interrupt normal execution by typing the special character "@" and provide a statement for immediate interpretation which displays the current value of a variable or branches to a new segment of the program to resume testing. For example, if the author types

```
@GO TO START
```

control will transfer to the line in the lesson labeled START;

```
@TY #VAR
```

will display the current value of the variable VAR. In fact, the author may enter any statement for direct execution by preceding the command with an attribute sign. "@".

When errors are discovered during the testing of a program, they can often be corrected without terminating execution. An input from the author consisting of an attribute sign followed by a line number and a FOIL statement will cause the interpreter to replace the specified line of the lesson with the corrected statement. The following statement will cause line 21 to be replaced, with the instruction 'GO TO HERE + 6' indented one spaces.

```
@21 GO TO HERE + 6
```

4.2 DEBUG Statement

The DEBUG statement when set to ON causes the line number of a statement to be printed everytime a statement is executed. Also, everytime a variable is changed, the name of the variable and the new value are typed. DEBUG is originally set at OFF. In "direct mode," DEBUG is called for by using the "@" symbol:

```
@DEBUG ON   or   @DEBUG OFF
```

If DEBUG is ON when an ATTENTION or PROGRAM INTERRUPT occurs, the loader map will be dumped. This latter condition presumes that the $RUN command includes the setting, MAP=-MAP.

4.3 DUMP Statement

The DUMP statement (@DUMP) causes "everything" to be dumped: statement labels, variables, predefined variables, the values of DEBUG, RECORD, and BRANCH, and the current contents of the student's most recent response.

The programmer should exercise care in using the DUMP statement since the command is not selective and produces considerable output.

4.4 LIST Statement

The LIST statement specifies the lines of a program to be printed out according to their respective line numbers. It is useful in "direct mode" for debugging purposes and especially to ascertain the line numbers for particular statements and expressions. For example,

```
@LIST 57
```

will print out line 57 of the program. And,

```
@LIST 5.3  7.9
```

will print all lines between 5.3 and 7.9, inclusive. At least one blank space must be present between each line number in the LIST statement.

A LIST statement may also be followed by a message with the latter preceded by a comma or semi-colon. This convenience may be of value in programs where particular lines need to be accessed and are identified by assignment labels. For example,

```
:MODEL LIST 5.0  7.0; Equations for FISH GAME
```

In this case, the student is branched to the statement beginning with the label MODEL, the message, "Equations for Fish Game" is printed, and then the program lines from 5.0 to 7.0 inclusive, are printed.

4.5 PRESET Statement

The PRESET statement causes "PASS 1" in FOIL to be rerun. All variables are set back to their original values. The values of all statement labels are recomputed. Then execution begins at the first line of the program. The PRESET statement is usually used in "direct mode" preceded by the "@" symbol.

4.6 RECORD Statement

The RECORD statement when set to ON (RECORD ON) saves student responses in a file on logical unit #2. Originally, the RECORD statement is set to OFF (RECORD OFF).

The following example gives the format used to record responses.

Accept Line	Where Matched	Response Time	Student Response
1	no match	27.412	---
22	25	4.003	---
30	41	8.532	---
	43	16.028	---
	50	10.610	---

A response taking 27.4 seconds is recorded for the first ACCEPT statement on line 1. The "no match" indicates that a matching type of response was not called for, such as the recording of the student's name.

On line 22, a second ACCEPT statement has a successful match of an IF statement on line 25. Three other successful matches are recorded for lines 41, 43, and 50. Appropriate response times are given. Actual responses will be recorded in the last column.

APPENDIX E

BIOGRAPHY SIMULATION DOCUMENTATION

Biography Simulation Documentation

The program consists of two parts. One is a source deck written in FORTRANH (to take advantage of the logical*1 comparison facilities for character manipulation). When compiled (into BIOGRAPHY2) it then executes the other part of the program, which is a specially structured file (BIOGRAPHY1, on 8) containing general information concerning the biography references, and then the details of several client's problems in this area.

From the point of view of the user, the computer simulates a client who has a problem in biographical reference. The user (a student in library science) then plays the part of a reference librarian in trying to help the pre-set client by asking questions of him to get the necessary information. The computer scans the user's questions for keywords specified for biographical questions (several keywords can be associated with a single question) and then prints out the appropriate answer for this particular client. The computer also keeps track of the questions which have been asked. When the user feels he has enough information to make a recommendation, he types RECOMMEND and then an abbreviation for the name of the reference work in biography which he feels is the best answer (e.g., Who's Who, Current Biography, etc.). If he has enough information to make a recommendation the computer will type out a comment as to whether (and why) this answer is right or wrong. If he makes the wrong answer, he is allowed to continue asking questions. If he does not have enough information, he again may continue asking questions. If the user feels he is stumped, he may ask for HINT. In this case, the unanswered questions are scanned to see which one is most necessary (highest weighted as far as counting towards enough information to make a recommendation) and an appropriate hint is printed out. If there are no questions still unanswered which are significant for this problem (and in general there can be more significant questions than are absolutely necessary to make a recommendation) the user is told that he has all the necessary information. Then, if he asks for a HINT again, he is given a final hint which virtually tells him the answer (that is, which specific details the correct answer could supply). If, at any time, he wishes to stop the current client, he can type STOP, which will then ask him for a new client number. The other mode of termination of a client is to make the correct recommendation, which will also lead to the request for a new client number. At this point, the user may signoff by requesting client number 0. In general, the computer will print out a response to any recognized question, whether or not this is relevant to the problem (it is part of the reference librarian's task to ask relevant questions, and to separate out useless information).

In order to change the type of exercise to encyclopedias, bibliography, serials, etc., basically all that is necessary is to change the client file in BIOGRAPHY1 (or ENCYCLOPEDIA1). Keywords may be added or deleted at any time by modifying this file, as well as the responses to various questions, general headings, and the weights given to various clients. Any number of questions may be specified (current implementation has chosen 7: is he alive or dead, where did he live, what was his occupation, what specific information wanted, how long an article, how difficult and detailed, etc.) and any

set of arbitrary keywords may form a question, giving considerable flexibility. Individual clients may be added or subtracted at any time. The details of this file structure are given below. Minor changes are required for the FORTRANH program, entirely in the subroutine SEARCH which recognizes the abbreviations for the possible answers. This option was chosen because of the complex problems involved in discriminating between Who's Who, Who Was Who, Who's Who in America, Who Was Who in America, made the strict keyword approach impossible.

Client File Structure

All data is entered on integer line numbers. In general, the block 1-99 contains information specific to the type of exercise (e.g., BIOGRAPHY) but not client-specific. Then each client is awarded a block, X00-X99 (e.g., client 1 gets 100&199, client 3 300-399, etc.) This is basically convenience, as there is no reason why two clients shouldn't have some responses in common or if one client is pressed for space, overlap into any vacant space. The only absolute requirements are on the allocation of X00-X04 to each client for pointers, and the line numbers of the general information. The current compilation of the program only alots space for 9 clients (1 digit readin format) and 8 questions with keywords not exceeding 1100 characters (very easy to change).

Comment Structure

All material to be printed out on the teletype is specified by the first line. If you wish to print out more than one line in the particular comment or heading, then it is necessary to indicate a continuation. THE PROGRAM reads lines sequentially (integer line numbers) from the file starting from the first line until the first character in the line is a blank (non-zero didgit). The first character is a control character and never printed. From now on, all comments are specified only by their first line.

General Information Section

line#

1) Heading printed at start of program
20) NQUES, (NKEY (1), 1=1,NQUES)
number of questions$ number of keywords in each question
21) Keywords for first question (up to 255 characters in file line), separated by comma's, comma after last (if a particular question needs more keywords, simply put them at the start of the next question). The assignment to a particular line number is completely arbitrary and all that counts is the number in line 20.
22) Keywords for the second question
.
.
.
20+NQUES) Keywords for the last question

40) Enter new client comment
50) Question not understood comment
60) You do not yet have enough information to make a recommendation comment

70) Recommendation not understood comment
80) You have all the necessary information for a recommendation (Hint answer)

Specific Information Section

Clientnumber=X/100(X=100*Clinum)

X) (WEIGHT(1),1=1,NQUES),THRESH
X+1) (RESPAT(1),1=1,14)
X+2) (HINTAN(1),1=1,NQUES),LSTHNT
X+3) (QUESAN(1),1=1,NQUES),HEAD
X+4) (CORRES(1),1=1,14)

Notes on Client File Structure

1) Keywords must be separated by comma's, and a comma must follow the last in each line, to separate it from the first in the next.
2) WEIGHT(1)--The weight of the Ith question (.GE. 0).
a. When HINT is requested, the hint corresponding to the highest weighted unasked question is given. If 0, the question is not relevant to the given problem (all possible information has been given).
b. Unless the sum of the weights of the questions whose answers the student has received (if the same answer is received more than once, either because the same question was "asked" (recognized) or because the same answer is given to more than one question it is not counted multiply) exceeds THRESH, no recommendations are allowed.
3) RESPAT(1)--The line number of the comment to be printed upon the RECOMMENDation of the Ith reference work.
4) CORRES(1)--I if the Ith RECOMMENDation is acceptible, 0 if not (allowing multiple correct answers):solely determines whether the student is given a new client (acceptible) or told to continue.
5) QUESAN(1)--The line number of the answer to the Ith question.
6) HINTAN(1)--The line number of the hint to be printed upon the request of HINT when the Ith question is the highest weighted currently unanswered question.
7) LSTHNT--The line number of the hint to be given at the second request of a hint after no non-zero weighted questions remain unasked (the first time a standard comment is printed out).
8) HEAD--The line number of a heading to be printed out when a client has been requested.
9) THRESH--The threshold of question weights indicating adequate information (see #2).

There is no restriction on the multiple use of the same comment, except that should the same answer be indicated for more than one question, be sure to weight the questions equally.

Notes on Internal Structure of Fortranh Program

RESCNT--current total of weights of responses, to be .GE. THRESH before a recommendation is accepted.

HAVASK(1)--1 if the response to the Ith question has been given (even if

to another question).

NQUES--number of questions recognized.

NKEY(1)--number of keywords assigned to each question.

KEYWD(1100)--array containing all keywords, separated by commas. note: no discrimination between questions except NKEY(1).

TTLN(80)--array containing the most recent line read from the teletype.

LENGTH--number of characters in last line from teletype.

HIN--flag set when "You have all necessary information" has been printed once upon a HINT, so that next HINT will get LSTHNT.

FPNT--number of characters in KEYWD.

NRESP--generally number of question asked or number of work RECOMMENDed.

CLINUM--100,000*client number (MTS internal file access line).

Subroutines

READWR(1)--reads comment starting in line I from file and prints on teletype.

MATCH(NSTRNG,STRING)--scans STRING(NSTRNG) for KEYWORDS separated by COMMA'S, and then tries to match this against TTLN. NCNT returned through COMMON is the NCNTth such keyword which is the first recognized. MATCH returns 1 if successful, 0 if fails.

SEARCH(NRESP,*), returns in NRESP the number of the reference work RECOMMENDed, returns to * if the search fails.